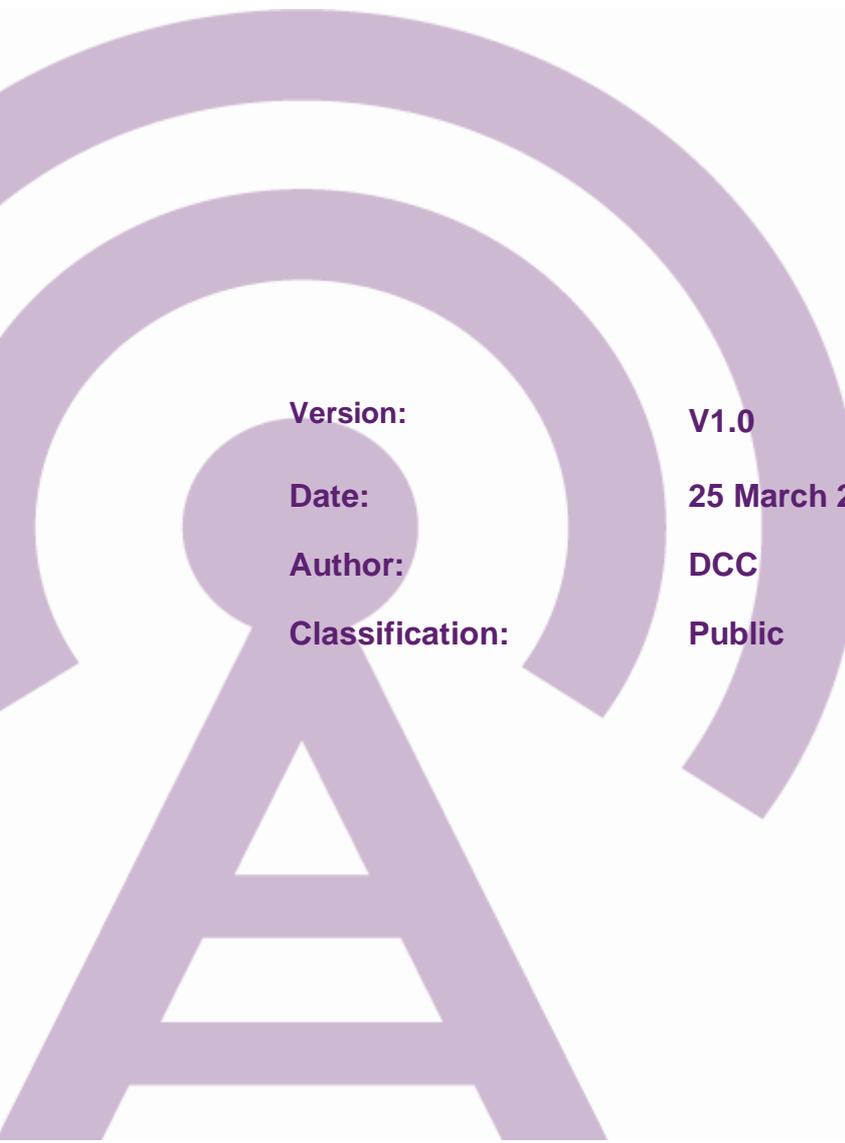


SMETS1 Migration

A guide for DCC Users



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1 Introduction/background

1.1 Objectives of this document

Welcome to SMETS1 Migration: A Guide for DCC Users. The primary purpose of this document is to provide a plain English guide that helps DCC Users gain an understanding of SMETS1 smart meters and their migration to DCC. Whilst of particular interest to Suppliers, this guide recognises that the SMETS1 migration also impacts Network Operators, Registered Supplier Agents (RSAs) and Other Users (OUs).

Once you've read this Guide, you should (hopefully) be better informed as to:

- what the SMETS1 migration means to your business;
- how you should prepare for it;
- when it's going to happen;
- how the migration process will work and what part you will play in it;
- where you should go for additional information.

1.2 SMETS1 Migration Objectives

SMETS1 Migration will help achieve important objectives in support of Government policy so that:

- consumers with SMETS1 meters still operating as smart meters will be able to switch Suppliers without losing their smart functionality;
- consumers whose SMETS1 meters have 'gone dumb' due to a change of Supplier will regain their smart functionality;
- Industry investments will be protected by delaying the need to replace 'dumb' SMETS1 meters.

For Suppliers, migrated SMETS1 meters reduce the number of SMETS2 meter installations they're required to complete by the end of 2020 and allow all smart meters to be accessed via DCC's systems which can simplify things in the back office.

1.3 Intended Audience

1.3.1 'Active Suppliers'

The term, 'Active Supplier', is used in this document to describe Responsible Suppliers currently operating, or able to operate, a SMETS1 smart meter as a smart meter through the services of a SMETS1 Smart Metering System Operator (SMSO).

It's important to note that the Responsible Supplier doesn't have to be operating the smart meter for the meter (and the Supplier) to be considered 'Active'. If the Supplier has a contract with the SMSO enabling it to operate the meter, it is considered to be an Active Meter regardless of whether or not the Supplier chooses to operate it.

This is important since, Active Suppliers play an active role in the migration of the meters to DCC, taking responsibility for ensuring that the SMETS1 Devices meet the pre-requisites for migration, scheduling when the migrations occur and, optionally, commissioning the SMETS1 Devices as part of the migration process (as described in section 4).

1.3.2 'Dormant Suppliers'

The term, 'Dormant Supplier', is used in this document to describe Responsible Suppliers with SMETS1 meters who have no contract with the SMSO and, as such, the SMETS1 meters have 'gone dumb'. As their name suggests, Dormant Suppliers play a relatively dormant role in the whole migration process; DCC taking responsibility for the majority of migration activity. DCC keeps Dormant Suppliers abreast of these activities; both prior to, and on completion of, the migration, at which point the Dormant Supplier can start operating the migrated SMETS1 Device(s) via DCC (assuming the Dormant Supplier has met the required pre-requisites – see section 3.2).

1.3.3 Network Operators

Like Dormant Suppliers, Network Operators have a largely dormant role in the whole migration process. They are kept abreast of progress of the overall migration but, as with SMETS2 Devices, they must wait for a SMETS1 Device to appear in DCC and then wait for someone else to associate their SMKI Security Credentials with the SMETS1 Device before being able to operate it.

1.3.4 Registered Supplier Agents (RSAs) and Other Users (OUs)

Like Network Operators, RSAs and OUs only become involved once the migration process has completed successfully, at which time, they are able to access previously inaccessible SMETS1 Installations via DCC. Unlike Network Operators, they are not notified of the arrival of a SMETS1 Device in DCC but, on the plus side, they're also not obliged to wait for SMKI Security Credentials to be associated with the SMETS1 Devices prior to communicating with them.

1.3.5 Geeks

For those with a morbid interest in the workings of DCC, section 7 provides a high-level overview of the entire end-to-end migration process, flagging those parts which feature in the previous sections describing Dormant Suppliers, Active Suppliers, Network Operators and RSAs/OUs. It's not essential that you know any of this so feel free to skip it.

1.4 Structure of Document

This document has been largely structured according to its readership:

- Section 2 is intended for everyone.
- Section 3 is aimed specifically at Dormant Suppliers (i.e. those who have inherited a SMETS1 meter through a change of Supplier but are not currently operating it as a smart meter).
- Section 4 will be of interest to Active Suppliers (i.e. those currently operating SMETS1 meters as smart meters through the services of a SMETS1 SMSO).
- Section 5 should be read by Network Operators (who will see migrated SMETS1 meters appearing on their networks following migration).
- Section 6 contains information relevant to Registered Supplier Agents (RSAs) and Other Users (OUs) who will now be able to access SMETS1 meters once they've migrated to DCC.
- Section 7 is a high-level description of what goes on behind the scenes to make all this happen.

1.5 Precedence

This document aims to be a relatively friendly, accessible guide to the complex world of SMETS1 migration but it's not intended to be a substitute for the definitive tomes on the subject in the form of the Transition and Migration Approach Document (TMAD) and other associated Smart Energy Code (SEC) documents.

In the event of any discrepancies between this document and the SEC documents on which it draws, it goes without saying that the SEC documents take precedence.

We've worked hard to ensure this Guide is aligned with the TMAD version 0.3. We don't plan to update this guide although we may consider should TMAD require substantive changes in the future. Hopefully this guide will rapidly lose its value as SMETS1 Migration progresses and people become more familiar with the migration process.

1.6 Notation

We've tried to use capitalisation of terms consistently in this document. If a term is capitalised, it has a specific meaning. Usually, it will be a term from TMAD, another SEC Subsidiary Document or the SEC, itself. Occasionally, it will be a term defined in the Guide (as is the case with 'Active Supplier' and 'Dormant Supplier').

Acronyms abound in smart metering and not more so than in the SMETS1 Migration. We've tried hard to expand any acronym on its first use and again if it hasn't been used for a while. We've also included a 'Jargon Buster' in Appendix A as a go-to section for the befuddled.

And to make things a little easier to read, we've also included two additional forms of notation to signpost external references and take away points.

1.6.1 Reference box

Blue boxes contain references to external documents (where possible including hyperlinks). We've also tried to include references to specific clauses within external documents as footnotes where relevant to the text.

For convenience, we've also gathered together all of the externally referenced documents in Appendix A.

Please bear in mind that this document has been written during a particularly busy stage of preparation for the SMETS1 Migration and many of the documents referenced in the Guide have yet to be finalised. It's likely, therefore, that many of these references may soon become redundant.

1.6.2 Tip box

Red boxes contain some more detailed points of information we hope you'll find particularly useful.

2 Some background information for everyone

2.1 Why do we have SMETS1 meters?

A key element in the Government's mandated rollout of smart meters is the establishment of DCC as a single gateway for those wishing to communicate with SMETS2 Devices. Indeed, due to the nature of the security model used to support them, DCC's infrastructure is the only mechanism for communicating with SMETS2 Devices.

However, some Suppliers chose to start installing smart meters prior to DCC becoming available. Some of these pre-DCC smart meters aren't particularly smart and don't count against a Supplier's obligation to offer every customer a smart meter by 2020. These will need to be replaced along with traditional meters. SMETS1 meters, on the other hand, are deemed sufficiently smart to count towards a Supplier's quota of smart meters and do not need to be replaced.

Prior to DCC coming into existence, Suppliers were required to procure the means for communicating with smart meters, themselves. DCC equivalent for pre-SMETS2 smart meters is a Smart Metering System Operator (SMSO). Some Suppliers chose to perform this role themselves; others chose to outsource this function to third parties.

2.2 Why migrate SMETS1 meters to DCC?

It is the Government's long-standing policy that, once up and running, all substantial populations of SMETS1 smart meters should be eventually enrolled in DCC thus making DCC the single point of access to all smart meters.

The justification for enrolment of SMETS1 meters in the DCC is set out in the [Government's response](#) to the SMETS1 consultation in October 2018.

This spawned the SMETS1 Migration programme which aims to migrate SMETS1 smart meters from the SMSOs under whom they were installed and operated, to DCC.

There are several reasons why this migration is deemed desirable:

- It stops smart meters going Dormant. SMETS1 smart meters frequently 'go dumb' when the customer switches Supplier since the new Supplier probably

¹ Smart Metering Implementation: Government Response to the Consultation on maximising interoperability for first generation (SMETS1) smart meters.

won't know they've gained a customer with a smart meter and, even if they did, may not have a contractual relationship with the relevant SMSO through which it could operate the SMETS1 meter in 'smart' mode.

- To revive Dormant smart meters. Given the relatively high levels of customer switching over recent years, there's an ever-growing estate of Dormant smart meters which, once migrated to DCC, should regain their 'smartness', thus avoiding the need for them to be replaced by SMETS2 smart meters. Allowing these meters to stay on the wall for the full duration of their lifespan will save the industry (and consumers) substantial money.
- Providing a single point of access to all SMETS smart meters. Once migrated, DCC will be the one-stop-shop for communicating with all smart meters, thus simplifying things for Suppliers but also opening access to non-Supplier Parties such as Network Operators and Other Users.

2.3 Some essential terminology

Not surprisingly, the SMETS1 Migration has spawned a whole new set of terms, the most important of which are described below. Don't forget, a full alphabetical 'Jargon Buster' has been included in Appendix B for reference.

2.3.1 SMETS1 Installations

The term, 'SMETS1 Installation' is used to describe a set of SMETS1 Devices sharing the same Communications Hub. It's sometimes also referred to as a SMETS1 Device Set and these terms can be used interchangeably. It's complete SMETS1 Installations that we're trying to migrate to DCC, rather than individual SMETS1 Devices.

2.3.2 Active Meters and Dormant Meters

For the purposes of migration, SMETS1 Devices are carved up into two categories; namely, 'Active Meters' and 'Dormant Meters'. For Suppliers, it's extremely important to understand the difference between the two as it has a profound impact on what's expected of them during the migration process.

Active Meters are SMETS1 Devices that are currently being operated as smart meters via a SMETS1 SMSO. Typically, they belong to customers who haven't changed Supplier since the SMETS1 Installation was installed but, in some cases, the new Responsible Supplier² may have a contractual relationship with the Installation's SMSO that allows them to communicate with the SMETS1 Installation.

Dormant Meters are SMETS1 Installations where one or more changes of Supplier means that the current ('Responsible') Supplier doesn't have a contractual relationship with the SMETS1 Installation's SMSO and, therefore, treats it as a

² i.e. the Supplier currently registered to the MPxN served by the SMETS1 Installation.

traditional meter (e.g. bills are generated based on readings collected by meter readers and/or customer own reads).

If the Supplier has a contractual relationship with the SMSO but chooses not to operate the SMETS1 Installation as a smart metering system, it is still considered to be Active for the purposes of migration!

2.3.3 Migration, Enrolment and Commissioning

Migration is what happens to a SMETS1 Installation when it moves from the control of its birth parent (the SMETS1 SMSO) to DCC. The Smart Metering Systems within SMETS1 Installations that successfully make the transition will be 'Enrolled' in DCC.

Once a SMETS1 Installation has been successfully migrated and is now able to communicate with DCC, it is said to be 'Enrolled'. You may also hear the phrase '**Enrolment and Adoption**'. 'Adoption' refers to DCC's taking on of the commercial contract with the associated SMETS1 Communications Service Provider responsible for the Wide Area Network (WAN) over which the SMETS1 Installation communicates.

An Enrolled SMETS1 Installation is one that has successfully migrated to DCC and one with which DCC is now able to communicate. To complete the migration process, the SMETS1 Devices within the SMETS1 Installation must be **Commissioned**; that is, set up in DCC's Smart Metering Inventory (SMI) and associated with its registered ('Responsible') Supplier. This is done by the Commissioning Party (or the Active Supplier – see section 2.3.4, if they elect to do so) by issuing a series of Service Requests similar to those used to commission SMETS2 Devices on installation. Though seemingly destined for the Device, none of the Service Requests actually get any further than DCC as they're only sent to update DCC with information about the new SMETS1 Devices.

For Dormant Meters, DCC acts as the Commissioning Party. For Active Meters, Suppliers have the option to commission the Devices themselves or, alternatively, can ask the Commissioning Party to do it for them.

2.3.4 Active Suppliers and Dormant Suppliers

The migration of an Active SMETS1 Installation is initiated by its current (i.e. Responsible) Supplier with nothing happening without the Supplier's say so. The Supplier is also responsible for ensuring that all Active Meters within the SMETS1 Installation are in a suitable state for migration and they also play an active role throughout the migration process.

We use the term '**Active Supplier**' throughout this document to describe Responsible Suppliers migrating SMETS1 Installations containing Active Meters (please note – it is only used within the confines of this guide and has no meaning in the context of the SEC).

For the purposes of migration, Active Suppliers can be further categorised as either 'Commissioning Active Suppliers' or 'Non-Commissioning Active Suppliers'. As described in section 0, once a SMETS1 Installation has been successfully migrated and enrolled in DCC, it needs to be commissioned. This essentially involves 'pseudo installing' its Devices by issuing the standard set of SMETS2 installation Service Requests. Active Suppliers have the choice of issuing these Service Requests themselves (i.e. being Commissioning Active Suppliers) or asking DCC's Commissioning Party to do it for them (i.e. being Non-Commissioning Active Suppliers).

In contrast to Active SMETS1 Installations³, the migration of Dormant SMETS1 Installations⁴ is initiated and managed by DCC who is also responsible for ensuring that the Dormant Meters are in an appropriate state for migration. The Supplier is kept informed of the migration process but plays little part.

We use the term '**Dormant Supplier**' throughout this document to describe Responsible Suppliers of Dormant Meters. Dormant Suppliers don't need to worry about commissioning migrated Dormant Meters as DCC gets the Commissioning Party to do this for them as a matter of course.

Please note, as with the term 'Active Supplier', 'Dormant Supplier' is only used within the confines of this guide and has no meaning in the context of the SEC.

2.3.5 Split Supply SMETS1 Installations

Things get a bit more complicated in the case of split supply dual fuel SMETS1 Installations (i.e. consumers who have chosen to buy electricity from one Supplier and gas from another). The possible permutations for such SMETS1 Installations are 'Active/Active' (i.e. both Suppliers are operating their respective SMETS1 Devices via the SMSO), 'Active/Dormant' (i.e. only one of the Suppliers is operating their SMETS1 Device via the SMSO) and 'Dormant/Dormant' (i.e. neither Supplier is operating their SMETS1 Device via the SMSO).

We cover the migration of 'Dormant/Dormant' and 'Active/Dormant' SMETS1 Installations from the perspective of the Dormant Supplier(s) in section 3. We also

³ i.e. SMETS1 Installations containing one or more Active Meters.

⁴ i.e. SMETS1 Installations containing only Dormant Meters.

cover the migration of 'Active/Dormant' and 'Active/Active' SMETS1 Installations from the perspective of the Active Supplier(s) in section 4.

2.4 What are the timescales for the SMETS1 migration?

2.4.1 Operating Capabilities

Migration of SMETS1 Installations is scheduled to take place in three main chunks called 'Operating Capabilities', namely:

- Initial Operating Capacity (IOC)
- Middle Operating Capacity (MOC)
- Final Operating Capacity (FOC)

What distinguishes the three Operating Capabilities (other than their timing and order) are the types of SMETS1 Installations being migrated and the SMSOs that support them. This is summarised in Table 1, below (note that the numbers reported are SMETS1 Meters rather than SMETS1 Installations. The capability dates are based on the Smart Meter Communication Licence (LC13) revised plan published on 8th February 2019).

Operating Capacity	Initial Operating Capacity (IOC)	Middle Operating Capacity (MOC)	Final Operating Capacity (FOC)
Date	End May 2019	End September 2019	Mid December 2019
Meters	Elster, Aclara (GE) and Itron	Secure and Elster	Landis & Gyr and EDMI
Active Meters	3.0 million	4.2 million	5.5 million
Dormant Meters	0.5 million	0.8 million	0.9 million
Total Meters	3.5 million	5.0 million	6.4 million

Table 1: SMETS1 Migration Phases

The scope and timing of IOC, MOC and FOC is defined in the DCC's Licence Condition 13 (LC13) plan that was agreed with the Department for Business, Energy and Industrial Strategy (BEIS) in October 2017. The DCC updated LC13 plan in February 2019 following and industry consultation, the results of which can be found [here](#).

However, these are currently under review and may change. Watch this space!

Each Operating Capability is likely to last at least 12 months (see section 4.5.8) so, as time goes on, IOC, MOC and FOC are likely to be running in parallel, as illustrated in Figure 1 below.

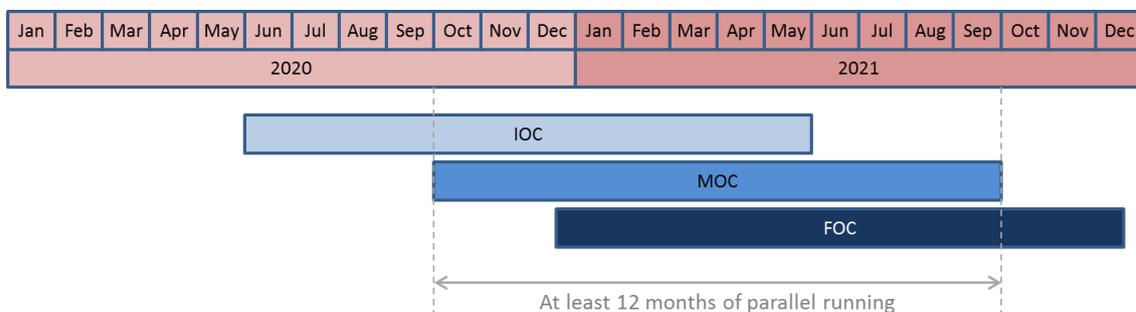


Figure 1: Operating Capabilities

2.4.2 Migration of Dormant SMETS1 Installations before Active SMETS1 Installations

Within each Operating Capability, the first SMETS1 Installations to be migrated will be those comprising Dormant Meters since DCC has a SEC obligation to migrate these as soon as reasonably practicable and to prioritise the migration of Dormant Meters over Active Meters⁵.

2.5 What if I'm not a Supplier?

Once SMETS1 meters have been migrated to DCC, they will be available to all authorised Parties including Network Operators, Registered Supplier Agents and Other Users. If you're one of these Parties, the good news is there's very little you have to do with respect to migration. There's even a section of this document that sets out exactly what the implications are for you.

2.6 Who are the key players involved in the SMETS1 migration?

There are a lot of parties involved in the migration of SMETS1 Installations to DCC. Your DCC User Role will determine how many of these you actually come into

⁵ TMAD, Clause 4.24
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contact with (as summarised in Table 2) but, for those interested, here's a quick summary of the key players and their part in the migration (a more detailed explanation can be found in section 7).

Player	Active Supplier (Commissioning)	Active Supplier (Non-Commissioning)	Dormant Supplier	Network Operator	Registered Supplier Agent/ Other User
DCC (MCC)	✓	✓	✓		
DSP	✓	✓	✓	✓	✓
SMETS1 SMSO	✓	✓			
SMETS1 Communication Service Provider					
Requesting Party (RP)					
S1SP	✓	✓			
Dual Control Organisation (DCO)					
Commissioning Party (CP)		✓			

Table 2: DCC User interactions with SMETS1 Key Players

2.6.1 DCC

DCC is responsible for the provision of SMETS1 Services and is managing the migration of SMETS1 Devices into DCC's systems to enable this. This includes managing existing service providers such as the DSP and procuring the services of new service providers such as the S1SP and DCO in addition to managing the day-to-day migration process.

2.6.2 DCC Migration Control Centre Service Desk (MCC)

As well as the recipient of migrated SMETS1 Installations, DCC is also responsible for developing and managing the migration process. Given the number of parties involved, DCC has established a dedicated team (the impressively named **Migration Control Centre**) to manage the migration process. This includes scheduling Active and Dormant Meter migrations, managing the actual migration process (including any

coordination between service providers of the migration solution), handover of migrated SMETS1 Installations to DCC's Early Life Support team and overall migration reporting.

2.6.3 Data Service Provider (DSP)

As the service provider responsible for managing DCC's central systems which will handle all communication with SMETS1 Installations post-migration, it's not surprising that the DSP has a significant role to play in migration. That said, much of the hard graft is performed by newly appointed SMETS1 service providers and the DSP's involvement is largely to perform its day job of receiving and forwarding Service Requests, Responses and Alerts between DCC Users and SMETS1 Devices.

2.6.4 SMETS1 Smart Meter System Operators (SMSOs)

In the current SMETS1 world, SMSOs perform a function similar to that of DCC (i.e. they support communication between Suppliers and their SMETS1 Devices). Their role in the migration process is to pass control of this communication to DCC which isn't as simple as it sounds. Tasks performed by SMSOs include:

- updating firmware on SMETS1 Devices⁶ prior to migration so that the SMETS1 Installation to which they belong is eligible for migration;
- configuring SMETS1 Devices prior to migration so that features which can't be accessed through DCC are left in a known and appropriate state (e.g. Privacy PINs are removed);
- passing sufficient information to DCC concerning SMETS1 Devices that are to be migrated to enable DCC to communicate with them (e.g. Device IDs, security keys etc.);
- ensuring that SMETS1 Installations destined for migration were contactable at some point in the 7 days immediately prior to the migration;
- as DCC **Requesting Party** (and subject to having received Supplier authorisations), initiating the migration of SMETS1 Installations and passing control of the SMETS1 Installations over to DCC.

The SMSO will also have a role to play in sorting out any problems in the unlikely event that all doesn't go exactly to plan.

2.6.5 SMETS1 Communication Service Providers

All of the SMETS1 Installations destined for migration currently use mobile networks for Wide Area Network (WAN) communication. It doesn't make commercial sense to change the WAN provider during migration since this would probably require a

⁶ Either in response to an instruction from an Active Supplier in the case of Active Meters or the DCC for Dormant Meters.

change in SIM card which would, in turn, necessitate a site visit. So, the migration of a SMETS1 Installation includes the commercial migration of the SMETS1 Communication Service Provider contract from the SMSO to DCC (a process that's also termed 'adoption').

2.6.6 Requesting Party (RP)

The Requesting Party is the party responsible for requesting the migration of a SMETS1 Installation. From a regulatory standpoint, this is DCC although, in practise, it's the SMSO acting on behalf of DCC. In the case of SMETS1 Installations containing one or more Active Meters, the Requesting Party can only request migration for those for which it has received authorisation from the Active Supplier. In the case of SMETS1 Installations comprising only Dormant Meters, authorisation is deemed to have been provided by the Responsible Supplier⁷.

2.6.7 SMETS1 Service Providers (S1SPs)

These are SMETS1 Service Providers that DCC appoints to discharge many of DCC's SEC obligations concerning SMETS1 Installations. They provide similar functionality to the departed SMSO, albeit within a DCC environment (indeed, all are former SMSOs). When you send a Service Request to the DSP, destined for a SMETS1 Installation, it's the S1SP that will do most of the work in communicating with the Devices. As such, it's the S1SPs who are the ultimate recipients of the majority of information passed by the SMETS1 SMSO during the migration process.

Each Operating Capability described in section 2.4.1 will result in one or more new S1SPs (an S1SP supporting one or more meter types – e.g. Elster, Aclara, Landis & Gyr etc.).

2.6.8 Dual Control Organisation (DCO)

SMETS1 and SMETS2 Devices aren't that different in terms of functionality (we touch on the differences in functionality in section 2.8). The major feature that distinguishes them is the security model under which they operate. Whilst SMETS2 Devices support DCC User-to-Device authentication and encryption, SMETS1 Devices operate under a more traditional security model in which the SMSO holds all the necessary security keys for communicating with the Device (keys that are passed from the SMSO to the S1SP during the migration process).

Having all the security keys held by one party introduces a single point of failure which tends to make security experts very nervous. To mitigate the risk of a compromised S1SP, a Dual Control Organisation (DCO) is appointed to share the security keys with the S1SP and, essentially, keep an independent eye on what the S1SP is doing. The DCO is involved in the migration and continues its watching brief during day-to-day operation. A bit like MI6, the DCO's activities won't be visible to DCC Users (it's just nice to know that they're there). For those interested, we discuss the role of the DCO in migration in a little more detail in section 7.

⁷ Clause 4.27, TMAD.
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2.6.9 Commissioning Party (CP)

As described in section 2.3.4, Active Suppliers can be further sub-divided into 'Commissioning Active Suppliers' and 'Non-commissioning Active Suppliers' on the basis of whether or not they choose to issue the installation Service Requests required to complete the enrolment of a SMETS1 Device in DCC. If they choose not to do so, DCC uses the Commissioning Party to perform this role instead. The Commissioning Party is also used to commission all migrated Dormant Devices (as there's no expectation or obligation on Dormant Suppliers to fulfil this function).

2.7 The Migration Process

The bad news is that the migration process is involved and complicated. The good news is that, unless you're DCC, most of it happens behind the scenes and can be ignored. That said, Active Suppliers have significantly more to do than Dormant Suppliers, Network Operators, RSAs or OUs.

For this reason, the rest of this document is structured around DCC User Roles on a need-to-know basis. Each section attempts to summarise migration from the perspective of DCC User Role in question and only covers information essential to a Party of that DCC User Role.

Section 2 (this section) is intended for everyone as it provides a high-level introduction to SMETS1 migration and defines some of the terminology used throughout the document. All Suppliers will need to read section 3 since all Suppliers are likely to inherit Dormant Meters through Change of Supplier. However, only Active Suppliers need to concern themselves with section 4. Similarly, Network Operators and RSAs/OUs need only read sections 5 and 6, respectively.

For those wishing to know more about the end-to-end process and how they fit into this, section 7 provides an overview and highlights the actions described in the previous DCC User Role-specific sections.

2.8 What's the difference between SMETS1 and SMETS2?

The focus of this document is to describe the SMETS1 migration process, rather than business-as-usual operation of SMETS1 Devices. That said, it might be helpful to summarise the different capabilities of SMETS1 and SMETS2 Devices, particularly which of the existing set of 123 Service Requests can be used with SMETS1 Devices.

SMETS1 defines a minimum level of functionality and some SMETS1-compliant Devices may support functions above and beyond this. Access to additional SMETS1 Device functionality, not provided in the DCC User Interface Specification, version 3 (DUIS3), can be requested as an Elective Communication Service as described in section H7 of the SEC.

DUIS3 provides SMETS1 support for 72 (59%) of the 123 Service Requests available to SMETS2 Devices as summarised in Table 3 below.

DCC Role	IS	ES	GS	ED	GT	RSA	OU	Total
DUIS3 SRs	108	16	84	35	21	18	23	123
DUIS3 SMETS1 SRs	64	11	57	25	17	12	16	72
%DUIS3 SMETS1 SRs	59%	69%	68%	71%	81%	67%	70%	59%

Table 3: SMETS1 support in DUIS3

DUIS3 has yet to be designated but version 0.3 can be found on the [‘The Developing SEC’](#) page of the SECAS website.

The following sections summarise the main areas of SMETS2 functionality not currently supported for migrated SMETS1 Devices.

SMETS1 Support for Service Reference Variants has been taken from the yet-to-be-designated draft of DUIS3. Whether or not functionality is supported by SMETS1 Devices has been taken from the SMETS1 specification – i.e. a minimum specification for a Device claiming to be SMETS1-compliant. It is quite possible that SMETS1 Installations will contain Devices that exceed the basic SMETS1 specification and would benefit from DUIS3 support for Service Reference Variants to access this additional functionality. If this is the case for SMETS1 Installations in your meter estate, there’s always Elective Communication Services.

2.8.1 Secondary Elements

The SMETS1 ESME specification doesn’t include a twin element meter; therefore, secondary element-related Service Requests (SRV1.1.2, SRV1.2.2 and SRV4.11.2) are not supported.

2.8.2 Block Tariffs

The SMETS1 ESME and GSME specifications include support for block tariffs but not for remote ad hoc or daily resetting of the Tariff Block Counter Matrix (SRV1.7 and SRV6.26, respectively).

2.8.3 Maximum Demand

The SMETS1 ESME specification doesn't include maximum demand registers; therefore, SRV4.12.1, SRV4.12.2, SRV6.18.1 and SRV6.18.2 are not supported for SMETS1 in DUIS3.

2.8.4 Daily Logs

The SMETS1 specification doesn't support daily logging of cumulative export or prepayment daily reads so no support is offered in DUIS3 for SRV4.6.2 or SRV4.14, respectively. Similarly, whilst the SMETS1 specification does include support for logging and retrieval of daily cumulative consumption⁸, this isn't supported in DUIS3 (so no support for SRV4.17 either).

2.8.5 Configuring Alert/Event Behaviour

The SMETS1 specification doesn't support remote reading or configuration of Alert/Event behaviour so there's no DUIS3 support for SRV6.2.10 or SRV6.22.

2.8.6 Auxiliary Load Control

Whilst the SMETS1 ESME specification supports load limiting, it doesn't support auxiliary load control so there's no support for SRV6.14.1, SRV6.14.2, SRV7.7, SRV7.8, SRV7.11 or SRV7.12 in DUIS3.

2.8.7 Device Security Credentials

All security credentials used when communicating with SMETS1 Devices are held by the S1SP (and DCO – see section 2.6.8) so DUIS3 does not support SRV6.15.2, 6.17 or 6.24.2.

2.8.8 Local Commands

The SMETS1 specification doesn't include support for delivery of local commands so there's no support for SRV 8.13 in DUIS3.

2.8.9 Installing/replacing Comms Hubs

The SRV8.14 family of Service Requests are all concerned with the installation of SMETS2 Comms Hubs – something not relevant to migrated SMETS1 Installations. So no support for SRV8.14.1, SRV8.14.2, SRV8.14.3 or SRV8.14.4 in DUIS3. Similarly, SRV8.12.1 and SRV8.12.2, Service Requests required when replacing Comms Hubs, are not supported in DUIS3 for SMETS1 Comms Hubs. Whilst replacement of SMETS1 Comms Hubs may still be possible for some SMETS1 Installations, it probably may also fall into the 'too difficult' bucket for many Suppliers.

⁸ Admittedly in a buffer containing only 14 date/timestamped entries as opposed to the 31 entries of its big SMETS2 sibling.

2.8.10 Dual Band Comms Hubs

Dual Band Comms Hubs are very much a SMETS2 thing so the Dual Band Comms Hub-specific Service Requests added in DUIS2 (SRV6.28, SRV6.29, SRV6.30, SRV6.31 and SRV6.32) are not supported for SMETS1 Devices.

2.8.11 Network Data (Gas)

Although the recording of four hours' worth of six minute consumption in a network data log is supported in the SMETS1 GSME specification, there's no provision for initiating the recording of this data remotely (i.e. no support for SRV14.1 in DUIS3). So presumably, SMETS1 GSMEs are constantly writing to this log and rely on a DCC User reading the log using SRV4.10 at the end of the four hour period of interest.

As a point of interest, SMETS1 Installations don't support direct access to the GSME. If you send a Service Request directly to a GSME (rather than the more normal GPF route), you'll get a response from the GPF claiming to be the GSME (a case of "talk to the GPF, 'cause the GSME ain't listening!")

2.8.12 Miscellaneous

There are a bunch of other SMETS2 functions which aren't included in the SMETS1 specifications, including:

- the configuration of a Device with the Supplier's name (SRV 3.4);
- the display of messages (SRV3.1);
- Privacy PINs for restricting local access to device data (SRV3.5);
- updating the randomisation applied on changes to tariffs (SRVs 6.2.2);
- the configuration of a Device with an MPxNs (SRVs 6.2.7, 6.20.1, 6.20.2);
- Service Opt-In/Out (SRVs 8.5, 8.6);
- requesting a Customer Identification Number (SRV9.1);
- requesting a WAN Matrix (SRV12.1).

If you inadvertently send a Service Request to a SMETS1 Device that isn't supported for SMETS1, you'll receive a DCC N60. Similarly, if you choose a Command Variant not supported for the SMETS1 Device, you'll receive a DCC N61 Alert.

2.9 Where should I go for more information

The information contained in this Guide is based on several documents but the go-to read for those wanting more detail would be the SEC Subsidiary Document, Transition and Migration Approach Document (TMAD).

TMAD was designated as Appendix AL of the SEC on the 14th February 2019 and can be found on the SEC Subsidiary Document section of the [SECAS website](#).

3 Information relevant to Dormant Suppliers

3.1 Introduction

We'll start with the bare minimum of what a Dormant Supplier needs to know about SMETS1 Migration since this section will be of interest to all Suppliers as it's highly likely that all Suppliers will own at least one SMETS1 Installation comprising Dormant Meters.

The good news for Dormant Suppliers is that DCC takes responsibility for the migration of SMETS1 Installations comprising Dormant Meters. That includes getting the SMETS1 Installation eligible for migration, migrating it and commissioning its Devices once it's been migrated.

As the Responsible Supplier for one or more of the Dormant Devices being migrated, you'll be kept advised of how the process is going and notified once the migration has successfully completed and you're able to contact the Device via DCC. This section sets out what you need to do in advance of the migration, how you'll know the migration is taking place and what you need to do once it's completed. In summary, it covers:

- how to become an Eligible DCC User;
- the notifications you'll receive of impending SMETS1 Installation migrations and how you should respond;
- what you should do after migration of a SMETS1 Installation;
- what you should do if something goes wrong;
- where to go for more detailed information.

3.2 What do I need to do ahead of the migration?

As mentioned above, Dormant Suppliers don't need to worry about getting SMETS1 Installations eligible for migration since this is handled by DCC. However, if you want to be able to communicate with a migrated SMETS1 Installation, you'll need to be DUIS3 compliant and have passed Eligibility Testing. It's also advisable to check that your current SMETS2 business processes will work with the reduced set of Service Requests available for SMETS1 Installations (as described in section 2.8).

3.2.1 DUIS3 Compatibility

In the same way that DUIS2 was introduced to support Dual Band Communications Hubs, DUIS3 is primarily being developed to enable DCC Users to communicate with migrated SMETS1 Installations. This means upgrading your DCC Adapter to DUIS3 or, if you use a shared service provider, ensuring that they are DUIS3 compliant. DUIS3 has yet to be designated by the Secretary of State but a draft version has

been available since December 2018 and is unlikely to change much. DUIS3 introduces S1SP Alerts and identifies the subset of Service Requests that can be used with SMETS1 Devices.

It's worth bearing in mind that DUIS is backwardly compatible so there's no need to run multiple versions.

Once you (or your service provider) have updated your DCC Adapter, this will need testing in the User Integration Test (UIT) environment. DCC are accountable for providing a DUIS3 UIT environment.

3.2.2 Passing SMETS1 UEPT

Once you're DUIS3-compliant, you're ready to undergo Eligibility Testing which takes the form of a SMETS1-specific set of Common Test Scenarios as documented in the updated version of Appendix R: Common Test Scenarios Document. It's likely that you'll be asked to demonstrate the ability to submit a representative set of the SMETS1 Service Requests permitted for your DCC User Role and show that you can receive some SMETS1 Device and DCC Alerts. Table 4, below, summarises the likely scope of SMETS1 Eligibility Testing for each DCC User Role.

DCC User Role	# Service Requests	# Device Alerts	# DCC Alerts
IS	64	1	6
GS	57	1	7
ES	7	0	2
ED	25	2	3
GT	17	0	3
RSA	11	0	1
OU	15	0	2

Table 4: SMETS1 Common Test Scenario Tests

Once you've passed SMETS1 User Entry Process Testing (UEPT) and are using version 3.0 of the DUIS XML Schema, you'll be ready to start communicating with migrated SMETS1 Installations.

A draft version of Appendix R: Common Test Scenarios Document updated for SMETS1 can be found [here](#).

There's a SEC obligation on Large Suppliers to take all reasonable steps to complete Eligibility Testing as soon as reasonably practicable.

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3.2.3 Getting your business SMETS1 ready

Once migrated, SMETS1 Installations can be accessed via DCC in the same way as SMETS2 Installations. However, not all Service Requests available for SMETS2 Devices are available for SMETS1 Devices (see section 2.8). This means that business processes you're running that service consumers with SMETS2 Devices will need to be reviewed to determine whether they will require update to support consumers with SMETS1 Devices.

3.2.4 Sorting out your Service Request forecasts

Once migrated, it's highly likely that you'll want to communicate with the newly arrived SMETS1 Installations. The additional Service Requests this will entail need to be reflected in both your quarterly Service Request Forecasts and, perhaps more importantly, in your Anomaly Detection Thresholds (ADTs – see section 3.2.5).

As you're no doubt aware, you have a SEC obligation to submit an 8 month forecast of Service Request volumes broken down by Service and Mode of Operation (Future Dated, Scheduled, On Demand) by the 15th working day of January, April, July and October¹⁰. These should take into account Service Requests destined for migrated SMETS1 Installations in addition to your current (and anticipated) SMETS2 meter estate. This won't be easy since you have no control over when SMETS1 Installations will be migrated or the numbers that are likely to appear. However, the notification that DCC intends to upgrade/configure one of your SMETS1 Installations (see section 3.3.2) should provide some advance warning which can be reflected in your forecasts.

⁹ Clause 13.26, Appendix AK, SEC.

¹⁰ H3.21, SEC.

DCC compares Service Request forecasts against what actually happens and informs the Panel of any DCC User who is more than 10% outside of their forecasts. The Panel may then publicise this to the world but has the discretion not to (which may seem appropriate if the error could be attributed to migrated SMETS1 Installations).

3.2.5 Setting your Anomaly Detection Thresholds

Again, you will, no doubt, be painfully aware of the SEC obligation to set Anomaly Detection Thresholds (ADTs) for Critical and Sensitive Service Requests¹¹. ADTs clearly need to take into account communications with migrated SMETS1 Installations which may mean raising a DCC Service Request to submit revised ADTs following a migration of Dormant SMETS1 Installations. Normal ADT submissions should be processed within 72 hours but, in the case of revisions to accommodate recently migrated Dormant SMETS1 Installations, there may be a case to argue for a fast-tracking the submission (in which case it should be applied within 24 hours).

3.3 How do I know when migration is going to happen?

As a SEC Party, you'll be kept informed of aggregate forecasts of the quantity of SMETS1 Installations that will be migrated over the duration of an Operating Capability. As the Responsible Supplier of a Dormant Meter, you'll also be notified of attempts to upgrade or configure a SMETS1 Installation to make it eligible for migration and then again of the subsequent migration attempt. You'll also be advised once the SMETS1 Installation has been successfully migrated and is available for access via DCC.

If you're a Dormant Supplier in a split supply SMETS1 Installation where the other Supplier is Active, DCC can't migrate the SMETS1 Installation without authorisation from the Active Supplier.

3.3.1 Indicative Migration Forecast Aggregate Report

Six months prior to the start of an Operating Capability (and only once TMAD has been designated), Active Suppliers are required to start submitting forecasts of the quantity of SMETS1 Installations that they intend to migrate for every day of the Operating Capability. These forecasts are submitted monthly and have to be in by the 20th of each month¹². DCC then publishes an aggregate of these forecasts at the end of the month. Whilst providing some insight into when the bulk of the SMETS1 Installations in an Operating Capability will appear on DCC, there's no obligation on

¹¹ G6.3, SEC.

¹² Clause 4.5, TMAD.

DCC to include Dormant SMETS1 Installations in this forecast so it's of limited interest to Dormant Suppliers.

3.3.2 Notification of intention to upgrade/configure a SMETS1 Installation

Before it can be migrated, a SMETS1 Installation must be eligible for migration. We go into what 'eligible' means in more detail in section 4.3 since it falls to the Active Supplier to ensure that the SMETS1 Installations they put forward for migration are eligible. Suffice to say this may involve updating the Device's firmware and/or its configuration.

The good news for Dormant Suppliers is that DCC takes responsibility for ensuring SMETS1 Installation eligibility. In discharging this responsibility, DCC may decide it needs to perform some remedial action on a SMETS1 Device for which you are the Responsible Supplier. If this is the case, they will notify you at least 15 working days prior to attempting the upgrade. If you've gained the customer within the last 15 working days, DCC will still take reasonable steps to let you know prior to the upgrade.

Although firmware and configuration updates won't happen together, you're likely to receive only one notification covering both. And whilst this will give you at least 15 working days' notice, it won't specify exactly when the updates will take place.

The notification contains, for each Device being upgraded, the relevant MPxN, Device ID, Device Serial Number, SMETS1 SMSO, details of the target Device Model Combination (DMC – see section 4.3.3 if you're interested) and the earliest date that the attempt will be made. The notification is delivered via an Excel spreadsheet posted to DCC SharePoint accompanied by an email notification (so, keep an eye on your inbox!).

Whilst not all upgrades will be successful, this notification should give you heads up as to the number of SMETS1 Installations you're likely to acquire.

3.3.3 Notification of intention to migrate a SMETS1 Installation

For SMETS1 Installations containing Active Meters, it's the Active Supplier who's responsible for initiating a migration attempt by issuing a SMETS1 Installation-specific Migration Authorisation to DCC. For SMETS1 Installations comprising Dormant Meters, the Dormant Supplier is deemed to have provided DCC with a Migration Authorisation, allowing DCC to initiate the migration when they feel appropriate.

Once DCC has decided to migrate one of your SMETS1 Installations, they will notify you at least 15 working days prior to attempting the migration¹³. As with notifications of intentions to upgrade Devices, if you've gained the customer within the last 15 working days, DCC will take reasonable steps to let you know of the migration prior to attempting it.

Migration attempt notifications (or 'Migration Schedules' as they're referred to) contain the MPxN, SMETS1 SMSO, Device Serial Numbers and IDs and time period over which the migration attempt will take place. As with the upgrade notification, the Migration Schedule notification will be delivered via an Excel spreadsheet posted to DCC SharePoint, accompanied by an email notification.

This notification is important. It not only tells you when to expect the arrival of a migrated SMETS1 Installation, it's also the trigger for you to provide DCC with the SMKI Security Credentials you'd like associated with the migrated Devices (both your own Supplier and those of the relevant Network Operator).

So why is this important? Well, you have an SEC obligation¹⁴ to ensure that migrated SMETS1 Devices have the correct Supplier and Network SMKI Security Credentials within 7 days of their being commissioned in DCC. The easiest way of meeting this obligation is to provide DCC with the appropriate SMKI Security Credentials and ask them to do it as part of the migration. Failing that, you'll have to do it yourself which will require you to be DUIS3 literate (see section 3.2.1) and have passed Eligibility Testing (see section 3.2.2).

Providing DCC with the necessary SMKI Security Credentials is relatively painless. You simply add them to the Excel spreadsheet containing the migration notification and send them back. You also have the option of flagging specific SMETS1 Installations as priority migrations if you so choose.

In order for the SMKI Security Credentials you provide to be used during the migration, you must respond to the DCC's Migration Schedule notification by the Thursday prior to the start of the Migration Week in question (though we'd encourage you to respond as early as possible!)

¹³ This only applies in the case of a Dormant/Dormant SMETS1 Installation. If you're the Dormant Supplier in a Dormant/Active SMETS1 Installation, the DCC may not be able to provide 15 working days' notice.

¹⁴ Clause 6.2 (a) and (b), Appendix AC Inventory Enrolment and Decommissioning Procedures, SEC.

Having the DCC associate the SMKI Security Credentials with the Devices within a SMETS1 Installation during the migration process makes a lot of sense. Not only does it keep you compliant with the SEC, it also means that you'll be able to communicate directly with the migrated Devices without first having to request control from the DCC. It saves the hassle of having to associate a load of SMKI Security Credentials once you have wrested control from the DCC and it allows the Network Operator to access the SMETS1 Installation as soon as it's migrated (rather than waiting for you to get your act together).

To receive both the notification of intention to update firmware/configuration and notification of intention to migrate, you don't need to be a DCC User but you do need to be a SEC Party as the notifications are routed according to your SEC Party Signifier.

More information on the format of the Excel spreadsheet notifications and how to receive/submit them is contained in the [Migration Authorisation Mechanism \(MAM\)](#).

3.3.4 Notification of successful migration

Having successfully migrated a SMETS1 Installation comprising Dormant Meters, DCC will take responsibility for commissioning the Devices within the SMETS1 Installation by delegating this duty to DCC's Commissioning Party. As part of the commissioning process, the migrated Devices are associated with their corresponding MPxNs and this triggers an N16 DCC Alert to the relevant Network Operator (to tell them that a Device has appeared on their network).

If, in response to the migration attempt notification (see section 3.3.3), you provided SMKI Security Credentials, the association of these with the Device during commissioning will trigger an N42 DCC Alert to the owner of Credentials being updated (i.e. you). And, if you've passed Eligibility Testing, you'll also receive a brand new DCC Alert (an N55) generated by the S1SP on the successful commissioning of a Meter.

If you didn't provide SMKI Security Credentials and haven't passed Eligibility Testing, you may still receive a DCC N999 Alert telling you that the DCC tried to send you a N55 which, due to your lack of DUIS3 compatibility, you were unable to receive. However, you'll need to be DUIS2-compliant to receive this (since the DCC N999 Alert was added in DUIS2).

When commissioning SMETS1 Installations, the Commissioning Party produces a Commissioning Outcome File (COF) which contains details of the SMETS1 Installations it attempted to commission, including any problems it encountered. Since the Commissioning Party is obliged to commission all Dormant SMETS1 Installations, you will receive COFs containing all SMETS1 Installations for which you are the Responsible Supplier and this is a good source of information as to which Dormant SMETS1 Installations made it through both the migration and commissioning process. COFs are delivered via DCC SharePoint site.

3.4 What do I need to do once a SMETS1 Installation has successfully migrated?

Having been told (via an N42 and, possibly, an N55) that one of your SMETS1 Installations has successfully migrated to DCC, there's a number of things that you should do; some mandatory and some optional.

3.4.1 Associating Network Operator SMKI Security Credentials with migrated SMETS1 Installations

As you're probably aware, there are a set of post commissioning obligations on Suppliers installing SMETS2 Devices set out in the SEC¹⁵. These include associating the Network Operator's SMKI Security Credentials with the installed Device, triggering the Device to re-generate its own SMKI Security Credentials and, for smart meters, ensuring that at least one of the Supplier's own SMKI Security Credentials is replaced. These should be completed as soon as possible following installation and at least within 7 days. In the case of migrated SMETS1 Installations, your obligations are restricted to associating your own Organisation SMKI Security Credentials and those of the relevant Network Operator with the installed Device¹⁶.

The easiest way around this is to provide SMKI Security Credentials in response to DCC's notification of its intention to migrate a SMETS1 Installation (see section 3.3.3). That way, both you and the Network Operator can access the migrated SMETS1 Installation as soon as you're ready. Failing that, you'll need to become an Eligible DCC User for SMETS1, request handover of the Devices within each migrated SMETS1 Installation¹⁷ and update the Network Operator Certificates¹⁸.

Your post-commissioning obligations in relation to SMETS1 Devices are set out in Clause 6 of Appendix AC Inventory Enrolment and Decommissioning Procedures of the SEC which can be found on the [SEC Subsidiary Document page of the SECAS website](#).

¹⁵ SEC, Appendix AC, Clause 5.2.

¹⁶ Clause 6.2, Appendix AC Inventory Enrolment and Decommissioning Procedures, SEC.

¹⁷ Via an SRV6.21 Request Handover of DCC Controlled Device Service Request.

¹⁸ Via an SRV6.15.1 Update Security Credentials (KRP).

There's a bit of an issue at present regarding Active/Dormant split-supply SMETS1 Installations in that any Certificate IDs that you return in the response to your Migration Schedule Notification will be ignored. This means you'll need to request control of your Device from the DCC post-migration but it also means that you'll still have to associate the Network Operator's Certificate IDs with the Device within 7 days of it being commissioned.

3.4.2 Finding out about migrated SMETS1 Installations after the event

In an ideal world, you'll have passed Eligibility Testing prior to the start of the migration of Dormant Meters and will receive notification of SMETS1 Installation migrations (via N42s) as they occur. If you weren't able to pass Eligibility Testing prior to the start of an Operating Capability and weren't, therefore, able to witness first-hand the migration of a number of SMETS1 Installations, there's obviously a bit of catching up to do.

The Migration Reporting Regime (MRR) specifies a number of reports that DCC generates to monitor the success or otherwise of the migration process. As a Dormant Supplier (i.e. the Responsible Supplier for one or more DCC-migrated Dormant SMETS1 Installations), you get to receive these reports via your nominated DCC SharePoint directory. If you weren't around at the start of migration, you should be able to piece together a view of what's been going on in your absence from these reports. For example, there's a report that lists the SMETS1 Installations that have been successfully migrated and commissioned in the previous 6 hour period. However, given that they'll be 4 of these for every day of the migration, this may involve aggregating information from a lot of reports!

3.4.3 Testing of migrated SMETS1 Installation

Having inherited a migrated SMETS1 Installation, the next obvious step is to see if it works. Querying the Smart Metering Inventory (SMI) to find out more about what you've inherited¹⁹ would seem like a sensible first step, possibly followed by a read of the Comms Hub Device Log²⁰ to check that the Devices listed in the SMI tally with those in the property. However, the choice is yours. But remember, if you didn't get around to asking DCC to associate SMKI Security Credentials with the Devices during migration, you'll need to request control of the Devices and update the Network Operator SMKI Security Credentials (probably as a matter of urgency!).

¹⁹ Via an SRV8.2 Read Inventory.

²⁰ Via an SRV8.9 Read Device Log.

In the case of split-supply Dormant SMETS1 Installations, you'll need to use the SRV6.21 Request Handover of DCC Controlled Device Service Request the first time you communicate with your SMETS1 Device, regardless of whether or not you provided your Supply Certificate IDs in the response to your Migration Schedule Notification. You'll also need to associate the Network Operator Certificate IDs with the SMETS1 Meter using SRV6.15.1.

3.4.4 What if something goes wrong?

As a Dormant Supplier, you're unlikely to be too concerned a SMETS1 Installation fails to migrate. It was Dormant before the migration and still is so the consumer is likely to be unaffected. You're also not likely to know about the failure unless you take an interest in the mountain of Migration Reporting Regime (MRR) reports that will be building up in your DCC SharePoint directories.

To make sense of these reports, a perusal of the Migration Reporting Regime (MRR), a 'child' document to the TMAD, might be in order. The MRR sets out ten reports produced by DCC, who receives them, the frequency with which they're produced, the period they cover and what they contain. The MRR is currently out for consultation and is likely to change so best to check the latest version.

Version 1.0 of the Migration Reporting Regime document went out for consultation in January 2019 and the DCC is now reviewing feedback. The MRR consultation can be found [here](#).

If you have problems operating a migrated SMETS1 Installation, you're probably best off raising a DCC Incident.

The version of the DCC's Incident Management Policy that has been updated to accommodate SMETS1 can be found on the '[The Developing SEC](#)' page of the [SECAS website](#).

3.5 Where should I go for more information?

Clauses 4.24 to 4.34 of [TMAD](#) provide more information relating to the migration of Dormant Meters.

4 Information relevant to Active Suppliers

4.1 Introduction

This section focuses on SMETS1 migration from the perspective of an Active Supplier (i.e. one that is currently operating SMETS1 Devices through an SMSO and is offering these up for migration to DCC).

To avoid too much repetition, we'll assume that you've read the previous section aimed at Dormant Suppliers (since all Suppliers are likely to inherit at least one Dormant Meter). However, as an Active Supplier, you have significantly more involvement in the SMETS1 migration process than your Dormant counterpart.

In summary, this section covers:

- getting your SMETS1 Installations eligible for migration;
- submitting SMETS1 Installation migration forecasts;
- the six-week migration cycle;
- what you should do if something goes wrong;
- where to go for more detailed information.

4.2 Getting yourself ready for migration

As for Dormant Suppliers, Active Suppliers need to be DUIS3-compatible (see section 3.2.1), have passed Eligibility Testing (see section 3.2.2) and should have reviewed their SMETS2 business processes for compatibility with SMETS1 Installations (see section 3.2.3). You'll also need to include your planned migration of SMETS1 Installations (in addition to forecasts of Dormant SMETS1 Installations) in your quarterly Service Request Forecasts (see section 3.2.4) and revise your ADTs accordingly (see section 3.2.5).

4.3 Getting your SMETS1 Installations ready for migration

4.3.1 Introduction

To describe the device-related pre-migration activities, it's helpful to have a common set of terminology. So we'll start off by defining a few terms that will help enormously later on.

4.3.2 Device Model/Firmware Combinations

Smart Devices comprise hardware (a Device Model) and firmware (software that runs on the Device Model and can be updated over-the-air). Correct operation of the Smart Device depends on the combination of Device Model and firmware. As a DCC User, you're probably familiar with the Certified Product List (CPL) which lists the

combinations of Device Model/firmware which have been approved for use on DCC’s infrastructure. When a Device manufacturer releases a new version of firmware for a particular Device Model, the new Device Model/firmware combination must be tested and added to the CPL before it can be distributed to Devices in the Production environment.

You’ll probably come across ‘Certified Products List’ and ‘Central Products List’ which can be a bit confusing. According to the SECAS website, the Central Products List contains both SMETS1 and SMETS2+ Devices whereas the Certified Products List is the subset of SMETS2+ Devices within the Central Products List. Glad we cleared that up.

4.3.3 Device Model Combinations (DMCs)

As mentioned above, in SMETS1 migration, the objective is to migrate an entire SMETS1 Installation comprising several SMETS1 Devices; each with a different Device Model/firmware combination. In this context, the set of SMETS1 Devices from which a SMETS1 Installation is comprised is referred to as a Device Model Combination (DMC). This is illustrated in Figure 2 below.

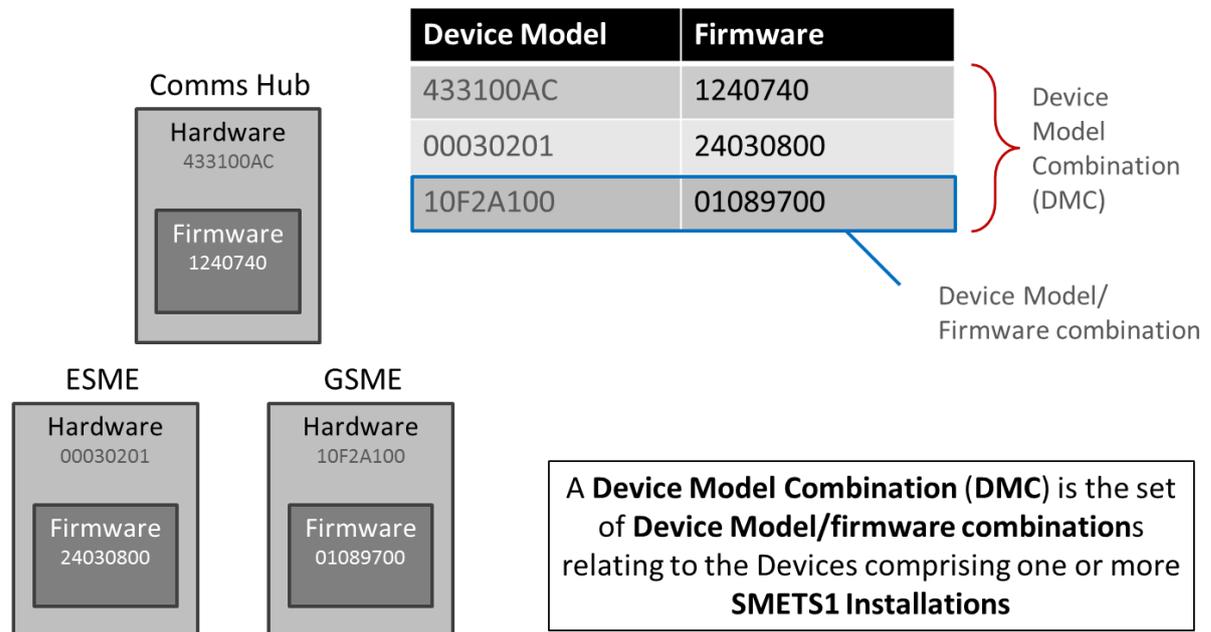


Figure 2: Device Model Combinations

4.3.4 DCC Device Testing

Unlike SMETS2 Devices, DCC actually gets to test SMETS1 DMCs prior to granting access to operate on their systems. The first DMCs will be tested as part of the Systems Integration Testing (SIT) phase that precedes the start of migration.

There's also a Device Model Combination Testing (DMCT) service for DMCs that miss out on SIT but arrive before the start of migration. DCC is also making available another enduring Device testing service called the Pending Product Combination Testing service (PPCT) that's primarily intended for Suppliers wishing to upgrade firmware in their SMETS1 Installations and, therefore, need to add new DMCs to the Eligible Product Combinations (EPC) list (see section 4.3.5).

A SMETS1 Installation must have its DMC on the EPC to be eligible for migration and continued operation within the DCC.

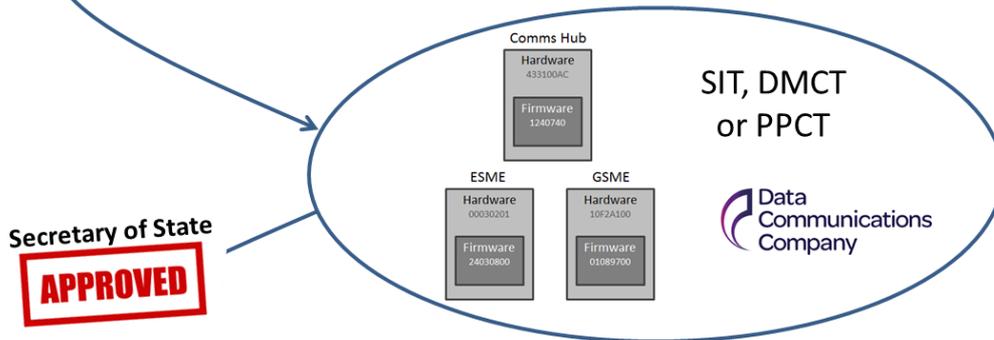
4.3.5 EPC and PPC Lists

In the same way that Device Model/Firmware combinations must be added to the CPL before being eligible for operation with DCC, so DMCs must be added to an approved list (the '**Eligible Product Combinations**' (**EPC**) list) before being eligible for migration. Unlike the CPL, however, each EPC entry corresponds to a DMC (e.g. an ESME DMC, GSME DMC etc.) rather than the CPL entries which relate to an individual Model/firmware combination.

As described above, DCC is responsible for testing DMCs to ensure that they work with DCC systems. For the initial set of DMCs, this is done during the System Integration Testing (SIT) and Device Model Combination Testing (DMCT) phases that precede the Operating Capability. For later DMCs, Active Suppliers submit candidate DMCs by adding them to the **Pending Product Combinations (PPC) list**. This is the 'Ellis Island' for SMETS1 Devices; the parking lot for would-be DMCs hoping to migrate to DCC and it's from this list that DCC selects DMCs for Device Model Combination Testing (DMCT - section 4.3.4). Those that pass can be added to the EPC list. However, updates to the EPC list also require approval from the Secretary of State. This is illustrated in Figure 3, below.

Pending Product Combination (PPC) list

DM	FW	DM	FW	DM	FW	DM	FW
433100AC	1240740	00030201	24030800	10F2A100	01089700		
542D0012	2361003	23F002A1	34983611	34B23F22	98101H88	23323611	76501H88
2D376012	5493303	2D34E5A1	00321411	34B23F22	98101H88		



Eligible Product Combination (EPC) list

DM	FW	DM	FW	DM	FW	DM	FW
433100AC	1240740	00030201	24030800	10F2A100	01089700		

Figure 3: PPC, DCMT and EPC

The EPC is maintained by DCC and will be available on the DCC website.

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In addition to getting onto the EPC, the Device/firmware combinations that make up the DMC also need to get into the Central Products List (CPL) for the DSP to recognise them. The good news is that this is a formality and is managed by the DCC via SECAS.

4.3.6 Updating SMETS1 Device firmware

Only DMCs on the EPC are eligible for migration so, if you're an Active Supplier with a load of SMETS1 Installations that share a DMC that's not on the EPC list, you can either add the DMC to the PPC to get it on the EPC (acronyms! Don't you just love 'em?!) or, alternatively, change the DMC of your SMETS1 Installations by updating

²¹ Clause F2.10A, Section F, SEC.
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the firmware versions of one or more of the Devices. This can be done using your SMSO's firmware upgrade processes. Some SMSOs may do this automatically.

4.3.7 Updating SMETS1 Device configurations

Once you've got your SMETS1 Installation on a DMC that's on the EPC, it's not quite time to relax. SMETS1 Devices may have some remotely configurable features, control of which didn't make it into DUIS3. If this is the case, these features need to be configured to defined, benign values prior to migration to DCC (since, after migration, these features will no longer be accessible without changes to DCC or a site visit).

Examples of such configurable features are:

- **Privacy PINs** which restrict customer access to information on the Device's user interface: any such PIN must be removed prior to migration;
- **Supplier Name/Contact Details** : any such details need to be removed prior to migration since setting of these isn't supported by DCC;
- **Display of currency units**: these must be configured to be GBP prior to migration since it won't be possible to change them via DCC (clearly a bit of a risk if we're likely to adopt the Euro ...).

Pre-migration configuration requirements are defined in the SMETS1 Supporting Requirements document, a draft of which can be found on the '[The Developing SEC](#)' page of the SECAS website.

Like firmware updates, updating configurations can take an appreciable time since it may impact a large proportion of the candidate SMETS1 Installations. It's also possible that the SMETS1 SMSO may not currently support all the commands required to do this. Another reason for talking to your SMETS1 SMSO early!

4.3.8 Preparing Prepayment SMETS1 Installations

If you're current operating SMETS1 Devices in prepayment mode, you might like to consider taking some additional precautions to ensure that your customers don't go off supply during the migration process.

It's not yet possible to say for sure how long it will take to migrate a SMETS1 Installation from the SMETS1 SMSO to DCC (although you should assume at least 24 hours). One thing is for sure, there will be a period of time when you will not be able to communicate with it. If your customer is a prepayment consumer relying on

over-the-air top ups, this could present a problem as an extended black out in SMETS1 Installation comms could result in the customer going off supply.

There are various options for mitigating this risk. You could:

- use the 'Migrate On' and 'Priority' options within the Migration Authorisation (see section 4.5.5) to force the migration to happen on a specific day and to take priority over other migrations on that day;
- configure appropriate non-disconnect periods prior to the migration to coincide with the specified migration day;
- change the payment mode of the SMETS1 Installation to credit prior to the migration, changing it back to prepayment once it has been successfully migrated.

Marking the SMETS1 Installation as a priority migration will ensure that it's one of the first SMETS1 Installations to start the migration process on that day of the Migration Week (i.e. it gets to the front of the queue). Once in the process, it will be treated like any other SMETS1 Installation but, having successfully migrated, as a prepayment SMETS1 Installation, it will get priority for commissioning by the Commissioning Party (assuming you've elected to use the Commission Party to do your commissioning).

4.4 Submitting Indicative Migration Forecasts

As an Active Supplier, you're required to submit **Indicative Migration Forecasts**. These are forecasts of the quantity of SMETS1 Installations that you intend to migrate during the course of an Operating Capability for each SMETS1 SMSO (usually only one per Operating Capability). Indicative Migration Forecasts should be submitted monthly, by the 20th of the month, and you should start submitting these 6 months prior to the start of an Operating Capability (this obligation is contained in the recently designated TMAD so, if you're not already submitting Indicative Migration Forecasts, it's time to start).

Each Indicative Migration Forecast should list the number of SMETS1 Installations that you intend to migrate on each day throughout the duration of the Operating Capability (which is a minimum of 12 months²²). Daily totals should be broken down by Electricity Distributor. Indicative Migration Forecasts are non-binding and can be revised each month. If you're an Active Supplier in multiple Operating Capabilities, you'll have to submit multiple Indicative Migration Forecasts, one for each of your SMETS1 SMSOs.

²² Clause 7.2, TMAD.
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Information on the format for Indicative Migration Forecasts and the mechanism for submitting them can be found on the DCC SharePoint [here](#) (note: you'll need your DCC SharePoint login).

By the end of each month, DCC will provide all SEC Parties with a summary report based on an aggregate of all the Indicative Migration Forecasts it has received.

The format for Indicative Migration Forecast summary report and the mechanism by which it is delivered is currently being defined by the Migration Control Centre (MCC).

4.5 The 6 week migration cycle

4.5.1 Introduction

Once the Operating Capability begins, migration execution runs as a rolling weekly process over a 6 week period. The 6 week migration cycle centres on week 5, the Migration Week, in which the SMETS1 Installation migrations actually take place. A Migration Week commences on a Monday and lasts 7 days (to allow for migrations to occur over the weekend, if required).

Within the 6 week migration cycle, there are 4 weeks of preparation before the big event (the Migration Week), followed by a week of outcome reporting. This is illustrated in Figure 4, below.

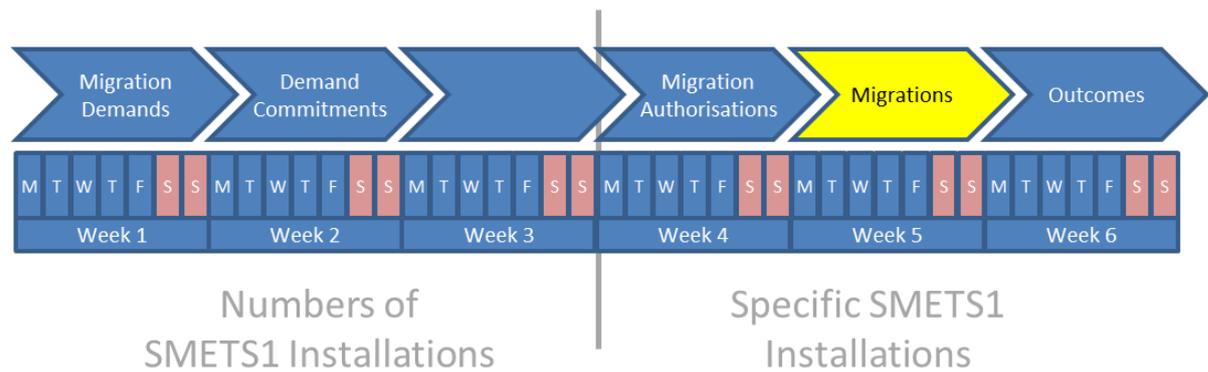


Figure 4: The 6 week migration cycle

This is a rolling 6 week migration cycle so, once migration is in full swing, an Active Supplier migrating SMETS1 Installations every week will have 6 cycles running in parallel, albeit at different stages. And, given that Operating Capabilities overlap (see section 2.4.1), an Active Supplier involved in more than one Operating

Capabilities will have even more migration cycles running in parallel. Figure 5 attempts to illustrate this.

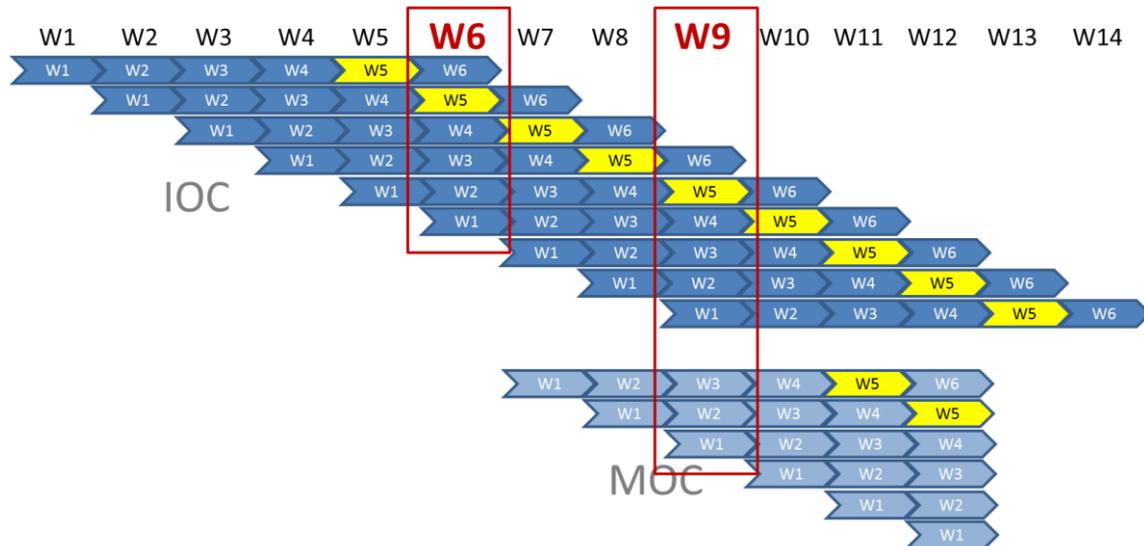


Figure 5: Parallel 6 week migration cycles

Let's summarise what happens during the 6 week migration cycle for a given Migration Week (we'll look at each week in a little more detail in the following sub-sections).

- In week 1, the Active Supplier firms up their Indicative Migration Forecast for each day within the Migration Week and submits this to DCC in the form of a Migration Demand.
- In week 2, DCC responds by sending a Demand Commitment to the Active Supplier, committing to minimum quantities of the Active Supplier's SMETS1 Installations that it will migrate in each day in the Migration Week.
- Week 3 is time to catch your breath as nothing much happens in relation to the Migration Week.
- In week 4, the Active Supplier provides DCC with Migration Authorisations for the specific SMETS1 Installations it wants to be migrated during the Migration Week.
- In week 5, DCC attempts to migrate the specified SMETS1 Installations according to the directions provided by the Active Supplier in the Migration Authorisation.

- In week 6, DCC produces a set of reports informing everyone what happened during the Migration Week (e.g. how many SMETS1 Installations were successfully migrated).

4.5.2 Week 1: Migration Demand

By 10:00 on the Tuesday of week 1, as Active Supplier, you need to notify DCC of the daily quantities of SMETS1 Installations for which you expect to submit Migration Authorisations for each day of the Migration Week (the so-called “Daily Migration Demand”). Like Indicative Migration Forecasts, these Daily Migration Demands need to be broken down by Electricity Distributor (i.e. GSP Group)²³.

If you fail to send in your Daily Migration Demands for the Migration Week by 10:00 on the Tuesday of week 1, DCC will use your Daily Migration Demands from the previous Migration Week²⁴. If you failed to submit Daily Migration Demands for the previous Migration Week, you won’t get allocated any Daily Migration Demand Commitment capacity – you have been warned!²⁵

If you don’t intend to migrate any SMETS1 Installations for the Migration Week in question, it’s best to submit zero Daily Migration Demands for that Migration Week to prevent inadvertently reverting to the previous Migration Week’s Daily Migration Demand Commitments. Although there are no explicit penalties associated with overstating your intended migration volumes, it does mean that other Active Suppliers may be denied confirmed migration capacity. A failure to submit Daily Migration Demands that are a reasonable reflection of your intentions may also constitute a breach of the SEC.

Daily Migration Demands are submitted in the form of a Comma Separated Variable (CSV) file uploaded to your nominated DCC SharePoint folder and they don’t need to be signed. You can upload as many versions as you like prior to the 10:00 cut-off – only the latest version will be used. But anything received after the cut-off will be ignored – again, don’t say you weren’t warned!

The format of a Migration Demand submission is defined in section 8 of the Migration Scaling Methodology which can be found on the [DCC’s website](#).

²³ Clause 4.8 (a), TMAD.

²⁴ Clause 4.9, TMAD.

²⁵ Clause 30, MSM.

A macro-enabled Excel spreadsheet called SMETS1 Migration Demand Template v1.0.xlsm accompanies the Migration Scaling Methodology and can be used to generate Daily Migration Demands in the correct format. It also can be found on the [DCC's website](#).

4.5.3 Week 2: Demand Commitment

By 10:00 on the Tuesday of week 2, DCC will respond with the number of your SMETS1 Installations that it commits to migrating on each day within the Migration Week (the so-called "Migration Demand Commitment")²⁶.

Under normal circumstances, these daily quantities should match those contained in the Demand Requirement you submitted in week 1. However, if DCC doesn't have sufficient capacity to handle all of the requested migrations, it will apply a scaling formula²⁷ to reduce the total number of daily migrations to a level that it can support.

The scaling formula is set out in the Migration Scaling Methodology which has yet to be finalised but the key features of the methodology are likely to be:

- scaling is only applied to Active SMETS1 Installations (i.e. available capacity is allocated first to the migration of Dormant SMETS1 Installations in line with DCC's obligation to prioritise the migration of Dormant SMETS1 Installations over Active SMETS1 Installations²⁸);
- all Active Suppliers are allocated a minimum number of migrations per day (initially set to 20);
- any remaining capacity is allocated to Active Suppliers equitably on a demand-weighted basis;
- In the unlikely event that there is insufficient capacity to meet the set minimum threshold, this will be reduced for all Active Suppliers according to available capacity.

You'll receive your Demand Commitment in the form of a CSV file delivered to your nominated DCC SharePoint folder. The format of the file is identical to that of the Daily Migration Demand with Daily Migration Demand values have been replaced with Daily Demand Commitment values

²⁶ Clause 4.8 (b), TMAD.

²⁷ Clause 4.11, TMAD.

²⁸ Clause 4.24, TMAD.

Should DCC fail to provide you with a Demand Commitment by 10:00 on the Tuesday of week 2, you can assume that your Demand Requirement will be met in full²⁹ (no news is good news).

By 17:00 on the same day, DCC will provide all SEC Parties with a summary report, based on an aggregate of all the Migration Demand Commitments it has issued, containing the number of SMETS1 Installations to be migrated on each day within the Migration Week, broken down by Electricity Distributor.

The format for Migration Demand Commitment summary report and the mechanism by which it is currently being defined by the Migration Control Centre (MCC).

4.5.4 Week 3: Hiatus

Take a break. Not much for an Active Supplier to do in week 3.

4.5.5 Week 4: Migration Authorisation

By week 4, we're getting to the pointy end of things. Communications with DCC concerning the Migration Week have, up to this point, been about quantities of SMETS1 Installation migrations. From now on, we're discussing the migration of individual SMETS1 Installations (servicing real consumers).

As discussed in section 3, Dormant Suppliers are deemed to have provided authorisation to DCC to migrate Dormant SMETS1 Installations³⁰. However, in the case of Active SMETS1 Installations, migration can only take place if the Active Supplier has provided a Migration Authorisation (MA) for each individual SMETS1 Installation³¹.

Migration Authorisations are deemed so important that they warrant their own document – the Migration Authorisation Mechanism, version 1.0 of which is currently out for consultation and can be found [here](#).

By 10:00 on the Thursday of week 4³², you need to send Migration Authorisations to DCC for all the SMETS1 Installations that you would like migrated during the Migration Week (week 5). For each SMETS1 Installation, you need to specify:

²⁹ Clause 4.10, TMAD.

³⁰ Clause 4.27, TMAD.

³¹ Clause 4.17, TMAD.

³² Section 4, Migration Authorisation Mechanism.

- the associated MPxN(s);
- whether you want DCC's Commissioning Party to commission the SMETS1 Installation as part of the migration process or whether you want to handle this yourself;
- the Critical and Non-Critical Supplier SMKI Security Credentials you'd like to associate with the SMETS1 Devices (ESME, GSME and GPF) in the SMETS1 Installation.

If you're an Active Supplier in a split supply SMETS1 Installation where the other Supplier is Dormant, the DCC can't migrate the SMETS1 Installation without your authorisation. Similarly, if the split supply SMETS1 Installation has two Active Suppliers, DCC can only migrate the SMETS1 Installation when both Suppliers have provided authorisation (the migration taking place at the later of the two authorised migration dates).

Optionally, you can also specify:

- the Critical and Non-Critical Network Operator SMKI Security Credentials you'd like to associate with the SMETS1 Devices (ESME, GSME and GPF) in the SMETS1 Installation;
- the date within the Migration Week on which you'd like the migration to take place;
- whether this is a priority migration³³ although you should only do this if the customer warrants priority treatment (e.g. they're a vulnerable customer or a prepayment customer for example).

If you're an Active Supplier for a split-supply site, you must use the Commissioning Party to commission your enrolled SMETS1 Device(s). This is also true if you happen to be the Responsible Supplier for a SMETS1 Installation comprising an Active Meter and a Dormant Meter.

DCC provides you with an Excel template (embedded in the Migration Authorisation Mechanism document) for generating a CSV file in the required format for submission via your nominated folder on the DCC SharePoint site. The template allows the file to be encrypted and compressed.

³³ Clause 4.40, TMAD.
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Having uploaded the encrypted, compressed file to the DCC SharePoint site, you need to sign the password file with an IKI key and email it to DCC's Migration Control Centre.

4.5.6 Week 5: Migration

4.5.6.1 Introduction

Week 5 is when it all happens (hopefully!) as DCC attempts to migrate the SMETS1 Installations that you've nominated in your Migration Authorisation. Exciting times! However, unless you've decided to commission the migrated Devices yourself (see section 4.5.6.3), there's not much that you need to do in terms of assisting the migration process. It's more a case of pacing up and down in the waiting room for the arrival of your SMETS1 Installations and welcoming the new arrivals once they finally turn up.

What goes on in the delivery room is described in a bit more detail in section 7 but, for descriptive purposes, the migration process can be divided into three main parts, namely:

- **data validation:** in which the data required for the migration is marshalled and validated within an inch of their life and any SMETS1 Installations lacking in the data department are weeded out and held back for a subsequent Migration Day once the data problems have been fixed;
- **migration and testing of the Devices:** the handover of comms from the SMSO to the S1SP, testing of the Devices to ensure that this has gone smoothly and everything's in order and, finally, replacement of keys within each Device to prevent future SMSO access;
- **commissioning:** submission of the Commissioning Requests to the DSP, either by the Commissioning Party on behalf of the Active Supplier or by the Active Supplier themselves, to complete the migration process.

The critical stage is the second of these phases, namely the migration of control from the SMSO to the S1SP as, if this doesn't go smoothly, there's a danger of losing comms with the Device altogether. Assuming this goes swimmingly, the S1SP has a raft of checks to perform on each of the Devices in the SMETS1 Installation to ensure they are as they should be. Once a Device passes muster, it's time for the final and climatic act of the initiation ceremony as the S1SP asks the Device to replace its current key with a newly generated key. By doing so, the Device cuts off the ability to communicate with the SMSO. This is the so-called 'Point of No Return'!

Should a problem occur during any of this, the S1SP and DCO will delete any Device keys they hold associated with the SMETS1 Installation and the S1SP will notify the SMSO of what's happened, having attempted to restore WAN communications to the SMSO. It's then up to the SMSO to attempt to take the SMETS1 Installation back, sort out the problem and re-submit for migration at a later date.

As the Active Supplier, unless you've elected to do your own commissioning (see section 4.5.6.3), you're likely to be blissfully unaware of this until receipt of the next 6 hourly update on how things are going (see section 4.5.6.4). However, your SMSO will have received notification of this state of affairs within the hour and will, no doubt be attempting to re-establish comms.

In order to reduce the number of SMETS1 Installations that drop out of the migration process due to inadequacies in the data department, Suppliers can ask their SMSOs to generate a Migration Common File (MCF) and submit this to DCC on the run up to the Migration Week. DCC will validate the MCF and return a corresponding Migration Common Validation File (MVF) to the SMSO just as it would on the big day. This will give the SMSO time to correct any errors in the MCF data ahead of the migration and increase the likelihood of successful migrations on the day.

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4.5.6.2 Suppliers electing for DCC to commission Devices

As described in section 3.3.4, the first indication that things are going well is receipt of an N42 DCC Alert telling you that your SMKI Security Credentials have been associated with a migrated SMETS1 Device (you should receive one of these for each Meter for whom you are the Responsible Supplier within the SMETS1 Installation). The next you can expect to receive is a DCC N55 Alert telling you that your Meter has been successfully commissioned (note that you'll have to be DUIS3-compliant to receive this). Receipt of a full set of DCC N55 Alerts for all Devices in the SMETS1 Installation (minus the IHD) is a good indication that's all gone well and could be used a trigger for starting post-migration testing of the migrated SMETS1 Installation.

Alternatively, you can wait for "Migrations Successfully Completed" report produced every 6 hours by DCC in accordance with its Migration Reporting Regime (see section 4.5.6.4) which lists details of all successfully migrated SMETS1 Installations.

4.5.6.3 Suppliers electing to commission their own Devices

If you've elected to commission your own Devices, there's a bit more for you to do.

On the Migration Day, prior to the attempted migration, you will have received a Migration Common File (MCF) generated by the Requesting Party (the SMETS1 SMSO) and validated by DCC³⁵.

Immediately after the attempted migration, you'll receive one or more S1SP Commissioning Files (SCFs) from the S1SP over the SMETS1 Migration Interface (your nominated folders on the DCC SharePoint). Each SCF lists one or more

³⁴ Clause 4.2, TMAD.

³⁵ Clause 5.10 (a), TMAD.

SMETS1 Installations contained in the MCF, identifying which have successfully migrated and which haven't. In order to keep the migration process moving, the S1SP generates an SCF every hour, including every SMETS1 Installation that's completed migration (well or badly) by that time. For this reason, you can expect to receive several SCFs for every MCF that you've received pre-migration.

The Commissioning Party performs a whole raft of validation checks on the MCF and SCF files that it receives including cryptographic authentication of the sender and validation of file counters for anti-replay purposes. The good news is that, as a Commissioning Supplier, you're not obliged to perform the same set of checks (that said, you're welcome to do so if you feel the need).

On receipt of an SCF, you should check that you've received a corresponding MCF (by comparing the headers of the two files). Next, look for those SMETS1 Installations contained within the SCF that are marked as having been successfully migrated and check that these SMETS1 Installations also appear in the matching MCF. If they do, you're all set to submit the 20 or so Commissioning Requests required to commission all the Devices contained in the successfully migrated SMETS1 Installation.

If any of these Service Requests fail, you're probably best raising an Incident (having performed the necessary prerequisite triage, of course). See section 3.4.4 for more details.

4.5.6.4 Post-Commissioning Testing

Once commissioning is complete, you should now be able to communicate with your newly-enrolled SMETS1 Installation via DCC. Some testing is probably in order to check that this is, indeed, the case.

If you're the Responsible Supplier for an Active Meter in a newly migrated Active-Active split-supply SMETS1 Installation, you'll need to request control of the Active Meter from the DCC using the SRV6.21 Request Handover of DCC Controlled Device Service Request regardless of the fact that you provided the DCC with your Supplier Certificate IDs in your Migration Authorisation. You'll also need to associate the Network Operator's Certificate IDs with the Device using the SRV6.15.1 Update Security Credentials (KRP) Service Request regardless of whether you provided Network Operator Certificate IDs in your Migration Authorisation.

4.5.7 Week 6: Outcome Reporting

Week 6 in the 6 week migration cycle is all about conducting post mortems of what happened during the Migration Week. The Migration Reporting Regime (MRR), a

'child' document to the TMAD, sets out ten reports produced by DCC. For each report, the MRR specifies:

- who receives the report (Supplier and/or Electricity Distributor);
- the frequency with which it's produced (e.g. weekly, daily, every 6 hours etc.);
- the period the report covers (e.g. previous Migration Week, previous Migration Day, previous 6 hours etc.); and
- a detailed specification of what the report contains.

Version 1.0 of the Migration Reporting Regime document out for consultation can be found [here](#).

4.5.8 The start of and end of an Operating Capability

The first Migration Week in an Operating Capability commences on the first Monday following the first Device Model Combination (DMC) entry in the SMETS1 Eligible Product Combinations (EPC) list.

As mentioned in section 2.4.2, the first SMETS1 Installations to be migrated will be those containing Dormant Meters with DCC managing the whole process. When the first 6 week migration cycle kicks-in depends on when the first Active Supplier is ready to commence migration. By that time, DCC should have cut its teeth on the Dormant Meters and have the whole migration process running like clockwork.

DCC is required to develop a draft **SMETS1 Requesting Party (RP) Decommissioning Timetable** that sets out the dates (**RP Decommissioning Dates**) on which it proposes to decommission each SMETS1 RP. When a SMETS1 SMSO is decommissioned, any SMETS1 Installations still with the SMETS1 SMSO will have missed the migration boat and will need to be replaced with SMETS2 Installations under the Responsible Supplier's licence obligation.

The good news is that the RP Decommissioning Date for a SMETS1 SMSO must be no earlier than 12 months after the date on which the last DMC was added to the Operating Capability's EPC³⁶. It's highly likely that DMCs will be added to the EPC for some time as more and more DMCs pass Device Model Combination Testing (DCMT), effectively resetting the 12 month clock with each successive update. There's also a requirement on DCC to consult with the industry on the RP Decommissioning Timetable and to submit it to the Secretary of State for approval who may also choose to extend the Operating Capability.

³⁶ Clause 7.2, TMAD.
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When it is finally time to say goodbye to a SMETS1 SMSO, this is done by revoking the SMETS1 RP SMKI Security Credentials.

5 Information relevant to Network Operators

5.1 Introduction

This section focuses on SMETS1 migration from the perspective of a Network Operator (i.e. an Electricity Distributor (ED) or Gas Transporter (GT)).

To avoid too much repetition, we'll summarise what you need to know and point you in the direction of other sections of the document for more detail.

In summary, this section covers:

- getting yourself eligible to access migrated SMETS1 Installations;
- the information available to you to plan for the arrival of SMETS1 installations on your network;
- how you'll know when a SMETS1 Installation on your network has successfully migrated;
- what you can do with a SMETS1 Installation once it's migrated.

5.2 Getting yourself eligible for SMETS1

In order to access SMETS1 Installations, you'll need to be DUIS3-compliant (see section 3.2.1) and have passed Eligibility Testing (3.2.2). It would also be a good idea to review your existing SMETS2 business processes to see if they need updating to cope with SMETS1 Installations (which support a reduced set of Service Requests – see section 3.2.3). You'll also need to take account of migrated SMETS1 Installations in your quarterly Service Request Forecasts (see section 3.2.4) and adjust your ADTs accordingly (see section 3.2.5).

5.3 Planning for the arrival of SMETS1 Installations on your network

As a SEC Party, you'll get to receive the aggregate migration reports published by DCC. These include:

- an end of month summary report containing the aggregate forecast number of SMETS1 Installation migrations per Migration Day per Electricity Distributor³⁷ (see section 4.4);
- a weekly summary report, delivered by 17:00 on Tuesday, containing the number of Migration Demand Commitments per Electricity Distributor for each

³⁷ Clause 4.6, TMAD.
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day of the Migration Week that commences in 2 weeks and 6 days' time³⁸ (see section 4.5.3).

Reflecting the arrival of migrated SMETS1 Installations on your network in your Service Request Forecasts and ADTs clearly presents a bit of a problem since the migration is determined by either the Supplier (in the case of Active SMETS1 Installations) or the DCC (in the case of Dormant SMETS1 Installations). You may find the Indicative Migration Forecast Aggregate Report helpful for long term forecasting. Nearer the time, the Migration Demand Commitments Aggregate Report should prove helpful in adjusting your ADTs.

If you're lucky enough to be an Electricity Distributor, you'll also receive three of the ten reports defined in the Migration Reporting Regime (MRR) document (see section 4.5.6.4).

5.4 Detecting the arrival of SMETS1 Installations on your network

The first sign that a migrated SMETS1 Installation has appeared on your network will be receipt of a DCC N16 Alert notifying you of the successful commissioning of a SMETS1 Device within a SMETS1 Installation. This will (hopefully) be swiftly followed by a DCC N42 Alert notifying you that your SMKI Security Credentials have been successfully associated with the Meter. This is the trigger to start communicating with the Meter.

If you're receiving a lot more N16s than N42s, it probably means that one or more of the Responsible Suppliers for the newly migrated SMETS1 Installations isn't meeting their SEC obligations to place the Network Operator SMKI Security Credentials on the migrated Devices within 7 days of the Devices being commissioned in DCC.

If you're an Electricity Distributor, you might like to consult DCC's "Successful Migrations Completed in the Reporting Period" report (one of the ten Migration Reporting Regime (MRR) reports – see section 4.5.6.4). This will at least give you an indication of the likely offenders.

5.5 What you can do with SMETS1 Installations once they've migrated

25 of the 35 DUIS3 Service Requests available to an Electricity Distributor (ED) can be sent to SMETS1 Devices (i.e. 71%). Notable functions not available for migrated SMETS1 Devices are configuring/reading of maximum demand registers, retrieving

³⁸ Clause 4.8 (c), TMAD.
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daily consumption logs, configuring Alert behaviour, reading MPxNs and reading randomisation settings (tariff changes³⁹).

Similarly, 17 of the 21 Service Requests available to a Gas Transporter (GT) can be sent to SMETS1 Devices (i.e. 81%). Notable functions not available for migrated SMETS1 Devices are retrieval of daily consumption logs, reading of MPxNs and the ability to initiate the recording of 6 second consumption data.

For more information, take a look at section 2.8.

³⁹ Randomisation also applies to load control in SMETS2 Devices but load control isn't supported in SMETS1 Devices.

6 Information relevant to Registered Supplier Agents and Other Users

6.1 Introduction

This section focuses on SMETS1 migration from the perspective of a Registered Supplier Agent (RSA) or Other User (OU).

As with the section aimed at Network Operators, we'll try to avoid too much repetition by summarising what you need to know and pointing you in the direction of other sections of the document for more detail.

In summary, this section covers:

- getting yourself eligible to access migrated SMETS1 Installations;
- what information is available to monitor progress in the SMETS1 migration;
- how you'll know when a SMETS1 Installation has successfully migrated to DCC;
- what you can do with a SMETS1 Installation once it's migrated.

6.2 Getting yourself eligible for SMETS1

In order to access SMETS1 Installations, you'll need to be DUIS3-compliant (see section 3.2.1) and have passed Eligibility Testing (see section 3.2.2). It would also be a good idea to review your existing SMETS2 business processes to see if they need updating to cope with SMETS1 Installations (which support a reduced set of Service Requests – see section 3.2.3). You'll also need to take account of migrated SMETS1 Installations in your quarterly Service Request Forecasts (see section 3.2.4) and adjust your ADTs accordingly (see section 3.2.5).

6.3 Monitoring the progress of the SMETS1 migration

As a SEC Party, you'll get to receive the aggregate migration reports published by DCC. These include:

- an end of month summary report containing the aggregate forecast number of SMETS1 Installation migrations per Migration Day per Electricity Distributor⁴⁰ (see section 4.4);
- a weekly summary report, delivered by 17:00 on Tuesday, containing the number of Migration Demand Commitments per Electricity Distributor for each

⁴⁰ Clause 4.6, TMAD.
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Migration Day of the Migration Week that commences in 2 weeks and 6 days' time⁴¹ (see section 4.5.3).

These should help with your Service Request Forecasts and ADT adjustments.

6.4 Identifying migrated SMETS1 Installations

As an RSA/OU, you won't be informed of the successful migration of individual SMETS1 Installations. You can, however, see whether an individual premise contains a successfully migrated SMETS1 Installation by issuing an SRV8.2 Read Inventory (which returns SMETS/CHTS version for each Device present in the premise).

6.5 What you can do with SMETS1 Installations once they've migrated

12 of the 18 DUIS3 Service Requests available to a Registered Supplier Agent (RSA) can be sent to SMETS1 Devices (i.e. 67%). The only notable functions not available for migrated SMETS1 Devices are the ability to set up randomisation (for load control or tariff changes) and the ability to read MPxNs.

Similarly, 16 of the 23 Service Requests available to an Other User (OU) can be sent to SMETS1 Devices (i.e. 70%). Notable functions not available for migrated SMETS1 Devices are retrieval of daily consumption logs, reading of MPxNs, reading of Auxiliary Control information (including boost buttons) and requesting a Customer Identification Number.

For more information, take a look at section 2.8.

⁴¹ Clause 4.8 (c), TMAD.

7 Behind the scenes

7.1 Introduction

This section provides an overview of the whole end-to-end migration process, from the first Indicative Migration Forecast six months prior to the start of an Operating Capability through to outcome reporting the week after Migration Week. Whilst much of it is covered in previous sections, it's included here to:

- provide some insight into what's going on behind the scenes out of view of DCC Users;
- satisfy those with an interest in these things.

That said, it can be safely skipped by those who have a life.

In summary, this section covers:

- the end-to-end migration process and the interactions between the key players to enable this;
- variations in the process if the Active Supplier chooses to do their own commissioning (as opposed to leaving commissioning to the Commissioning Party);
- a very useful summary of the myriad of files involved in the migration process and who uses them.

7.2 The end-to-end migration process

The end-to-end migration process discussed in this section covers:

- the planning and scheduling phase in which Suppliers and DCC agree the numbers and timing of SMETS1 Installation migrations;
- the authorisation phase in which the Suppliers nominate specific SMETS1 Installations for migration;
- the data validation activities that ensure all the data necessary for the migration are valid and in place;
- the handover of the SMETS1 Installation Devices from the SMSO to the S1SP and S1SP's testing of the Device to ensure that this has been successful;
- the commissioning of successfully migrated SMETS1 Installation Devices by the Commissioning Party or Active Supplier;

- DCC's reporting of the outcome of this commissioning.

The process descriptions focus on the Supplier-initiated migration of Active Meters. Much of the process is the same for Dormant Meters with the exception that migration of Dormant-only SMETS1 Installations doesn't require the planning, scheduling and authorisation interactions with the Supplier. Section 7.2.1 describes the process where the Active Supplier has elected to use the Commissioning Party and section 7.2.2 shows variations to this process if the Active Supplier elects to do its own post-migration commissioning.

7.2.1 The end-to-end migration process (commissioning by Commissioning Party)

The process in Figure 6 assumes the Active Supplier has elected for the Commissioning Party to perform commissioning of migrated Devices on its behalf. It might be a good idea to print this out so that you can easily reference it whilst reading through the process description.

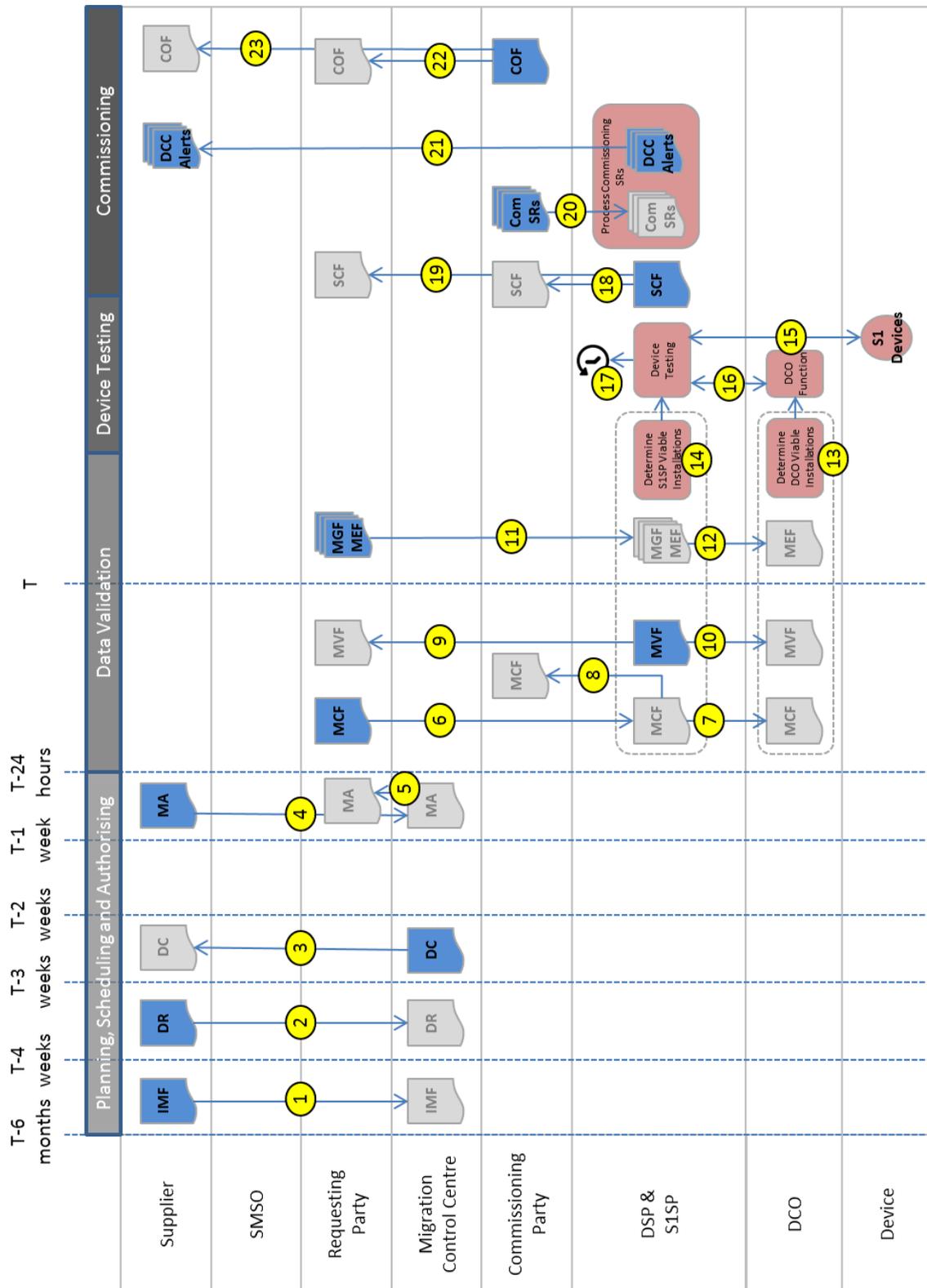


Figure 6: The end-to-end migration process (commissioning by Commissioning Party)

Table 5, below, provides an explanation of the interactions labelled in Figure 6, referencing other sections in the document where this is described in more detail.

Step	When	What's going on	Relevant section
1	T-6mths	From 6 months prior to the start of an Operating Capability, Active Suppliers submit monthly Indicative Migration Forecasts (to be received by the 20 th of the month) for the entire Operating Capability containing the number of Active SMETS1 Installations they intend to migrate on each day. DCC publishes an aggregate report based on all Indicative Migration Forecasts it has received by the end of each month. This report goes to all SEC Parties.	4.4
	T-4wks	By 10:00 on the Tuesday 4 weeks prior to the Migration Week, Active Suppliers submit Daily Migration Demands for each day of the Migration Week broken down by Electricity Distributor. This is the number of SMETS1 Installations they would like to migrate on each day.	4.5.2
3	T-3wks	By 10:00 on the Tuesday 3 weeks prior to the Migration Week, DCC sends each Active Supplier a Migration Demand Commitment for the Migration Week which specifies the minimum number of SMETS1 Installations the Active Supplier will be permitted to migrate on each day of the Migration Week. Ideally, this will be the same as the Active Supplier's Daily Migration Demand but, if there is insufficient capacity to support all requested migrations, DCC will have applied the Migration Scaling Methodology (MSM) to scale back the Daily Migration Demand to arrive at the Migration Demand Commitment. By 17:00 on the same day, DCC will publish an aggregate report based on all Migration Demand Commitments, broken down by Electricity Supplier. This report goes to all SEC Parties.	4.5.3
	T-1wk	By 10:00 on the Thursday in the week prior to the Migration Week, Active Suppliers submit Migration Authorisation (MA) files to DCC via the Migration Interface (i.e. nominated folders on DCC SharePoint). MAs contain the specific SMETS1 Installations that the Active Supplier wishes to migrate and contain information required to initiate the migration process	4.5.5

Step	When	What's going on	Relevant section
		<p>including MPxNs and Supplier SMKI Security Credentials to be associated with migrated Devices. The Active Supplier also specifies whether commissioning of migrated Devices will be done by the Commissioning Party or themselves. Optionally, the Active Supplier can specify a specific day within the Migration Week on which the migration of a SMETS1 Installation should take place, whether it should be considered as a priority migration and the Network Operator SMKI Security Credentials that should be associated with the Devices within the SMETS1 Installation. MA files must be signed by the Active Supplier using an IKI Key.</p> <p>Active Suppliers should only include those SMETS1 Installations in MA files that meet the eligibility criteria (i.e. they are of a DMC that is on the EPC list and have undergone the necessary pre-migration configuration). Receipt of a valid MA from the Active Supplier is a prerequisite for migrating a SMETS1 Installation containing one or more Active Meters.</p>	
5	T-1wk	The MCC forwards the MA file to the appropriate Requesting Party.	
6	T-24hrs	The Requesting Party generates a Migration Common File (MCF) containing a subset of the information required by the S1SP to migrate the SMETS1 Installations specified in the MA file. This includes Device IDs, MPxNs and SMKI Security Credentials (Supplier and, optionally, Network Operator). The Requesting Party sends the MCF to DCC.	
7	T-24hrs	DCC forwards a copy of the MCF to the DCO.	
8	T-24hrs	DCC also forwards a copy of the MCF to the Commissioning Party.	

Step	When	What's going on	Relevant section
9	T-24hrs	DCC's S1SP then validates the MCF, applying 18 checks to every SMETS1 Installation it contains ⁴² . It then generates a Migration Common Validation File (MVF) which contains an entry for every SMETS1 Installation contained in the MCF with details of any validation failures appended to each entry. It sends this to the Requesting Party who should address any SMETS1 Installations that failed validation and re-schedule them for a later Migration Day.	
10	T-24hrs	DCC's S1SP also sends a copy of the MVF to the DCO.	
11	T	<p>On Migration Day, the Requesting Party generates a Migration Group File (MGF) containing the necessary WAN details (e.g. IMSIs, IP Addresses) for each SMETS1 Installation in the MCF which didn't have any validation failures in the corresponding MVF.</p> <p>Depending on the types of Devices being migrated, the Requesting Party may also need to generate a Migration Group Encryption File (MEF) containing cryptographic material (e.g. Device Keys) needed by the S1SP to communicate with the Devices.</p> <p>These files are digitally signed and sent to the S1SP.</p> <p>The Requesting Party should only include SMETS1 Installations that are eligible for migration, i.e. have passed MCF validation, have DMCs on the EPC list, have been configured to work with DCC and for which there has been communication with the Comms Hub within the last 7 days (no point trying to migrate a dead SMETS1 Installation).</p>	
12	T	If DCC receives an MEF, it forwards a copy to the DCO.	
13	T	On receipt of an MEF, the DCO authenticates it, decrypts the contents and starts a timer. If 48 hours go	

⁴² Table 5.10, TMAD.
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Step	When	What's going on	Relevant section
14		<p>by without the DCO hearing anything from the S1SP regarding the contents of the file, it discards it. Assuming it does hear from the S1SP within the 48 hours, it holds onto the file for up to 60 days (the period over which the corresponding SMETS1 Installations must be migrated).</p> <p>The DCO then uses the contents of the MCF, MVF and MEF to draw up a list of 'DCO Viable Installations' (i.e. those SMETS1 Installations that pass its exacting scrutiny and which it considers are fit to migrate to DCC).</p> <p>Should the DCO not receive the MCF and MEF within 24 hours of having received the MVF, it discards the lot.</p>	
	T	<p>Meanwhile, the S1SP draws up its own list of S1SP Viable Installations based on the MCF, MVF, MGF and MEF. It populates an S1SP Commissioning File with any SMETS1 Installations that don't make the cut, indicating why.</p>	
15	T	<p>For those it considers viable, the S1SP tries to communicate with the SMETS1 Installations. There's a raft of tests that the S1SP is required to perform on each of the Devices contained within the SMETS1 Installation to check that everything's in order. The final stage of a Device migration is to ask the Device to replace its existing security key with a new key that's been generated jointly by the S1SP and DCO. Having done this, the Device is no longer able to communicate with the SMSO and has reached the fabled 'Point of No Return'!</p>	
16	T	<p>The S1SP liaises with the DCO to confirm Installation viability during the Device testing, only attempting to migrate SMETS1 Installations that both parties consider viable.</p>	
17	T	<p>If things go pear-shaped, the S1SP attempts to restore control of the WAN communications to the SMSO and the SMETS1 Installation is flagged as requiring rollback in the S1SP Commissioning File. The S1SP and DCO</p>	

Step	When	What's going on	Relevant section
18		<p>both discard any key information they hold for these Devices.</p> <p>SMETS1 Installations that pass Device testing are recorded as having successfully migrated in the S1SP Commissioning File (SCF) and the S1SP pre-notifies the corresponding Comms Hubs in DCC's Smart Metering Inventory (SMI).</p>	
	T	The S1SP sends the SCF to the Commissioning Party. Rather than wait for to complete Device testing for all SMETS1 Installations contained in the MCF/MVF/MGF/MEF, the S1SP generates an SCF at least every hour so that commissioning of successfully migrated SMETS1 Installations can commence as quickly as possible. For this reason, one MCF/MVF/MGF/MEF set may spawn several corresponding SCFs.	
19	T	The S1SP also sends a copy of the SCFs to the Requesting Party at least every hour so that SMETS1 Installations that have failed to migrate and require rollback can be processed by the Requesting Party as a matter of urgency.	
20	T	On receipt of the SCF, the Commissioning Party sends the appropriate Commissioning Requests to the DSP to commission the Devices belonging to successfully migrated SMETS1 Installations in the Smart Metering Inventory (SMI).	
21	T	<p>The Active Supplier receives a DCC N42 Alert once its SMKI Security Credentials have been successfully associated with a Device.</p> <p>The Network Operator will receive a DCC N16 Alert when the MPxN is associated with the Device within the SMI and, if the Active Supplier had been bothered to provide the Network Operator SMKI Security Credentials in the Migration Authorisation (MA), the Network Operator will also receive a DCC N42 Alert when these are associated with a Meter.</p>	4.5.6.2

Step	When	What's going on	Relevant section
22	T	The Commissioning Party generates a Commissioning Outcome File (COF) containing an entry for each SMETS1 Installation it tried to commission, whether it was successful or not. For those that couldn't be commissioned, it includes details of what went wrong. It then sends the COF to the Requesting Party with a similar sense of urgency as the S1SP when sending SCFs (i.e. generating a COF at least every hour).	4.5.6.2
23	T	The Commissioning Party also sends a copy of the COF to the Active Supplier at least once an hour.	4.5.6.2

Table 5: The end-to-end migration process (commissioning by Commissioning Party)

7.2.2 The end-to-end migration process (commissioning by Active Supplier)

The process in Figure 7 assumes the Active Supplier has elected to perform its own commissioning of migrated Devices.

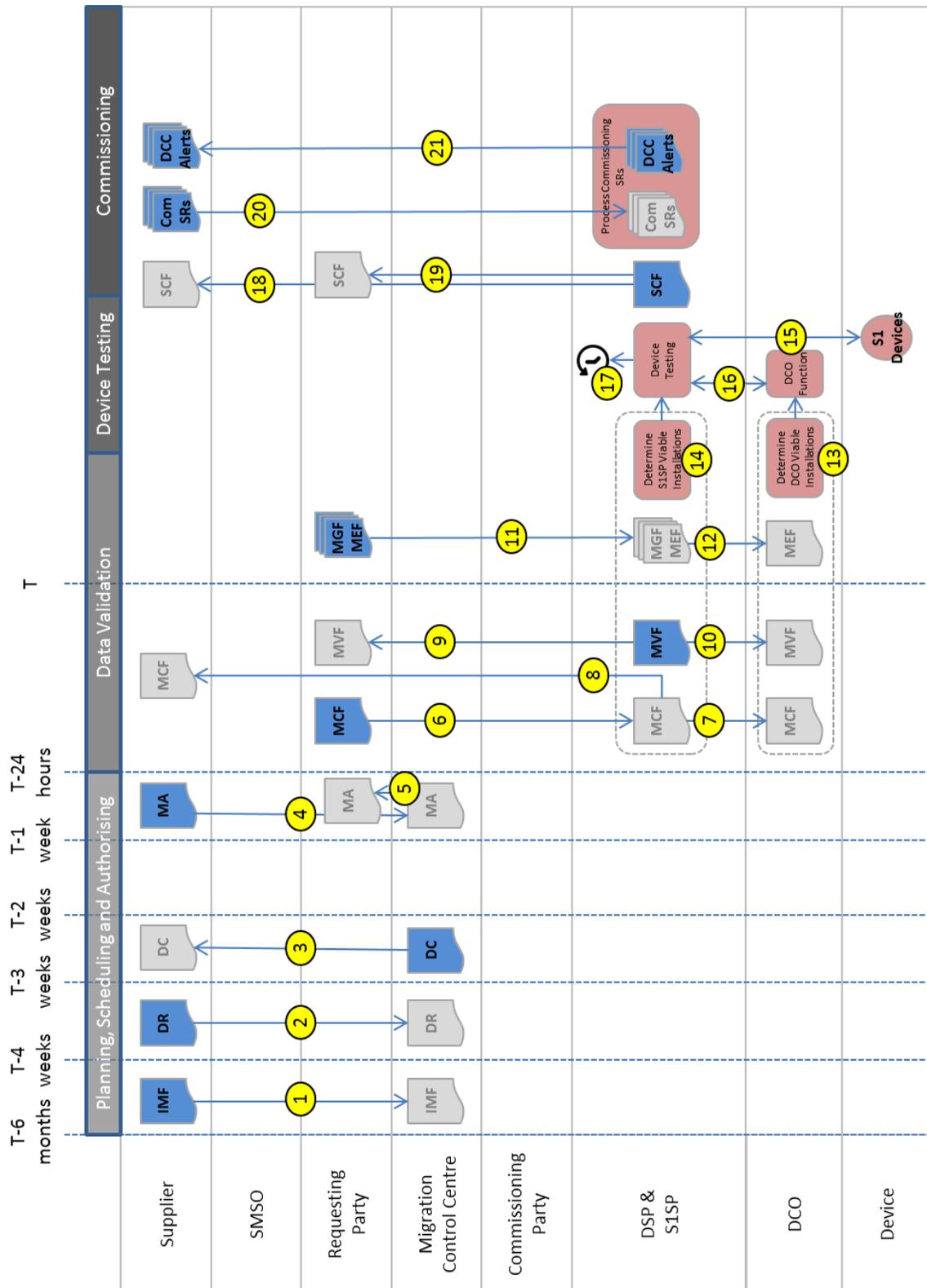


Figure 7: The end-to-end migration process (commissioning by Active Supplier)

Table 6, below, provides an explanation of the interactions labelled in Figure 7, referencing other document sections where more detail can be found. Only those steps that differ from the end-to-end migration process involving the Commissioning Party (as illustrated in Figure 6 and documented in Table 5) are included.

Step	When	What's going on	Relevant section
1-7		As per Table 5.	
8	T-24hrs	DCC also forwards a copy of the MCF to the Active Supplier to be used in the commissioning process.	4.5.6.3
9-17		As per Table 5.	
18	T	The S1SP sends the SCF to the Active Supplier. Rather than wait for Device testing for all SMETS1 Installations contained in the MCF/MVF/MGF/MEF to complete, the S1SP generates an SCF at least every hour so that commissioning of successfully migrated SMETS1 Installations can commence as quickly as possible. For this reason, one MCF/MVF/MGF/MEF set may spawn several corresponding SCFs.	4.5.6.3
19	T	As per Table 5.	
20	T	On receipt of the SCF, the Active Supplier can start sending the appropriate Commissioning Requests to the DSP to commission the Devices belonging to successfully migrated SMETS1 Installations in the SMI.	4.5.6.3
21	T	The Active Supplier receives a DCC N55 Alert (containing the Device ID and MPxN) when a Device is successfully commissioned. The Network Operator will receive a DCC N16 Alert when the MPxN is associated with the Device within the SMI. Once the Active Supplier has associated the Network Operator SMKI Security Credentials with the Meter as part of its post-commissioning obligations, the Network Operator will also receive a DCC N42 Alert when these are associated with a Meter.	4.5.6.3

Table 6: The end-to-end migration process (commissioning by Active Supplier)

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7.3 Migration Files

You may have noticed that there are one or two files involved in migration of SMETS1 Installations to DCC. Table 7 provides a useful summary of the key files, what they're for, who uses them and a reference to where you can find out more about them in this document.

In Table 7, the following keys are used to indicate file usage by the various stakeholders.

- G: Generated by;
- R: Received by.

And just to make things even more complicated, the following subscripts are used to denote where receipt or generation of a file is dependent on the type of party (e.g. only Active Suppliers). For the sake of clarity, the absence of a subscript indicates that the file is received by all types of that party (e.g. all Suppliers).

- A: If Supplier is Active;
- P: If Supplier is Dormant;
- C: If Supplier is acting as Commissioning Party;
- N: If Supplier is not acting as Commissioning Party.

File	Name	Supplier	SMSO	RP	MCC	CP	DSP	S1SP	DCO	BIMI ⁴³	Ref.
COF	Commissioning Outcomes File	R _N		R		G				R	3.3.4
DMD	Daily Migration Demand	G _A			R _A						4.5.2
MAF	Migration Authorisation File	G _A		R	R _A G _P					R	4.5.5
MCF	Migration Common File	R _C		G		R _N	R	R	R	R	4.5.6.3

⁴³ DCC's Reporting Solution.
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File	Name	Supplier	SMSO	RP	MCC	CP	DSP	S1SP	DCO	BIMI ⁴³	Ref.
MDC	Migration Demand Commitment	R _A			G _A					R _A	4.5.3
MEF	Migration Group Encrypted File			G				R	R	R	7.2.1
MGF	Migration Group File			G				R		R	7.2.1
MIF	Migration Indicative Forecast	G _A			R _A						4.4
MRR	Migration Reporting Regime	R			R					G	4.5.7
MS	Migration Schedule			R	G					R	3.3.3
MVF	Migration Common Validation File			R				G	R	R	4.5.6.1
SCF	S1SP Commissioning File	R _C		R		R _N		G		R	4.5.6.3

Table 7: Migration Files

Appendix A: References

Document	Version	Date	Location
Conclusion on DCC's delivery plan for SMETS1 Services	N/A	08/02/2019	DCC website
Migration Authorisation Mechanism (MAM)	1.0	21/12/2018	DCC website
Migration Reporting Regime (MRR)	1.0	01/02/2019	DCC website
Migration Scaling Methodology (MSM)	2.0	01/02/2019	DCC website
SEC Appendix AC Inventory Enrolment and Decommissioning Procedures	1.3	21/01/2019	SEC Subsidiary Document page of the SECAS website
SEC Appendix AD – DCC User Interface Specification (DUIS)	0.3 draft 3	19/12/2018	'The Developing SEC' page of the SECAS website
SEC Appendix AG Incident Management Policy	1.2, draft	20/06/2019	'The Developing SEC' page of the SECAS website
SEC Appendix R: Common Test Scenarios Document	1.x		DCC website
SMETS1 Migration Demand Template	1.0		DCC website
SMETS1 Supporting Requirements	0012, draft	19/12/2018	'The Developing SEC' page of the SECAS website
Transition and Migration Approach Document (TMAD)	1.0	14/02/2019	SEC Subsidiary Document page of the SECAS website

Table 8: References to External Documents

Appendix B: Jargon Buster

Term	Description
Active Meter	A Smart Meter that the Responsible Supplier is operating via an SMSO. In this case, the Supplier (referred to as an 'Active Supplier' in the context of this document) will need to liaise with DCC to request and authorise migration.
Commissioning Outcome File (COF)	A file containing the outcome of the commissioning steps undertaken by the Commissioning Party on behalf of an Active Supplier in relation to the Active Supplier's SMETS1 Installations.
Commissioning Party (CP)	DCC acting through a Service Provider who will provide the capability to enable Smart Metering Systems that have been successfully migrated to DCC to be set up as "Commissioned ⁴⁴ " in other parts of DCC systems (the DSP and the SMETS1 Service Provider). DCC is providing this capability as an alternative to an Active Supplier having to undertake these commission steps (and to perform commissioning of migrated Dormant Meters on behalf of Dormant Suppliers). This capability applies only during Migration of SMETS1 Devices into DCC.
CP	Commissioning Party.
CPL	Certified/Central Product List. A SECAS-maintained list of Device Model/firmware combinations permitted to operate on DCC's systems.
Commissioning Requests	A set of Service Requests sent by the Commissioning Party or Active Supplier for the purposes of commissioning SMETS1 Devices in DCC Systems. This is the same set of Service Requests used for commissioning of newly installed SMETS2 Devices and will result in equivalent updates to the Smart Metering Inventory (SMI).

⁴⁴ This does not mean that the meter and associated devices are re-commissioned in the consumer premises. It simply means that they are recognised as devices that can now be communicated with via the DCC.

Term	Description
Device Model Combination Testing (DMCT)	A DCC-led testing activity that forms part of the approval process for adding a Device Model Combination (DMC) to the Eligible Product Combinations (EPC) list. Before a SMETS1 Installation can be migrated, its DMC must be on the EPC list.
Dormant Meter	A SMETS1 Smart Meter which is not currently being operated as a smart meter by the Responsible ('Dormant') Supplier. Dormant Meters typically result from a change of Supplier away from the Active Supplier (typically, but not exclusively, the Installing Supplier).
Dual Control Organisation (DCO)	A DCC Service Provider with whom SMETS1 Device Security Credentials are shared and who is responsible for using these to monitor the behaviour of S1SPs.
EPC	SMETS1 Eligible Product Combinations list. A list of Device Model Combinations (DMCs) that have passed DCC-conducted Systems Integration Testing (SIT) or Device Model Combination Testing (DMCT) and gained approval of the Secretary of State to take part in SMETS1 migration.
Final Operating Capability (FOC)	The third and final phase of SMETS1 migration scheduled to commence in November 2019 and involving between 6 and 7 million Landis & Gyr and EDMI smart meters.
Head end	The central software system operated by an SMSO or S1SP that manages communications with smart meters.
Initial Operating Capability (IOC)	The first phase of SMETS1 migration scheduled to commence in May 2019 and involving approximately 3.5 million Elster, Aclara (GE) and Itron smart meters.
Installing Supplier	The Supplier responsible for installing a SMETS1 Installation.
Key Rotation	A change of Device Keys performed by the S1SP following the handover of SMETS1 Device communications from the SMSO, thus ensuring that the SMSO can no longer access the Device.

Term	Description
Middle Operating Capability (MOC)	The second phase of SMETS1 migration scheduled to commence in August 2019 and involving approximately 5 million Secure and Elster Smart Meters.
Migration Authorisation (MA)	An authorisation given by an Active Supplier permitting DCC to migrate a SMETS1 Installation. The Active Supplier must provide the MPAN (electricity) and/or MPRN (gas) for each Active Meter comprising the SMETS1 Installation as part of the MA.
Migration Common File (MCF)	One of a set of migration files created by the SMETS1 SMSO for DCC in order to migrate a SMETS1 Installation (the others being the MVF, MGF and MEF). The MCF contains general information concerning the Devices contained in the SMETS1 Installation (e.g. Manufacturer, Model, Serial Number etc.).
Migration Control Centre (MCC)	A DCC-led migration team consisting of the various migration solution providers, SMSOs and DCC. The MCC is responsible for monitoring, managing and supporting migrations on a daily basis.
Migration Group File (MGF)	One of a set of migration files created by the SMETS1 SMSO for DCC in order to migrate a SMETS1 Installation (the others being the MCF, MVF and MEF). The MGF contains Wide Area Network (WAN) details information required by the S1SP for communicating with SMETS1 devices.
Migration Group Encrypted File (MEF)	One of a set of migration files created by the SMETS1 SMSO for DCC in order to migrate a SMETS1 Installation (the others being the MCF, MVF and MGF). The MEF contains cryptographic material relating to the Devices comprising the SMETS1 Installation for use by the S1SP and DCO.
PPC	The SMETS1 Pending Product Combinations list of Device Model Combinations (DMCs) awaiting Device Model Combination Testing (DMCT) as a pre-requisite to being added to the Eligible Product Combination (EPC) list.

Term	Description
Requesting Party (RP)	The party responsible for requesting the migration of a SMETS1 Installation (this is the SMSO acting on behalf of DCC).
Responsible Supplier	The currently registered Supplier for a smart meter.
S1SP	SMETS1 Service Provider. A DCC Service Provider operating the Head end system that supports a group of migrated SMETS1 Installations.
S1SP Commissioning File (SCF)	A file produced by the S1SP that reports the outcomes from attempts to migrate SMETS1 Installations.
Smart Metering System (SMS)	Smart Metering System. Another term for a smart meter.
SMETS1	The Smart Metering Equipment Technical Specifications (Version 1) – a standard applying to millions of existing smart meters in the UK.
SMETS1 Installation	The term for a set of SMETS1 Devices in a consumer's home (e.g. ESME, GSME, CH and IHD). A SMETS1 Installation must be migrated in its entirety or not at all to prevent "stranding" of individual SMETS1 Devices.
SMETS1 Migration	The process by which the operation of SMETS1 Devices contained within a SMETS1 Installation is moved from a SMETS1 SMSO (outside of DCC) to the S1SP (a Service Provider operating within DCC).
SMETS1 Migration Schema	The XML schema containing formats used in files for sending information between parties, concerning SMETS1 Installations taking part in the SMETS1 Migration.
SMSO	Smart Metering Service Operator. An entity operating a Head end system currently operating SMETS1 Smart Metering Systems outside of DCC.

Term	Description
SSI	Self-Service Interface. The DCC web portal used by DCC Users to raise and monitor Incidents and obtain information concerning the state of DCC Services. Currently used for SMETS2 Devices, the SSI will also be used for raising SMETS1 Migration-related Incidents and reporting on SMETS1-related DCC Services.
TMAD	Transition and Migration Approach Document. The SEC subsidiary document which defines the responsibilities and obligations of the various parties involved in migration of SMETS1 Installations to DCC. The TMAD is the blueprint for the migration of SMETS1 Installations into DCC.

Table 9: Jargon Buster